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FOOD SUPPLY IN RUSSIA DURING  
THE WORLD WAR



ECONOMIC AND SOCIAL HISTORY  
OF THE WORLD WAR

JAMES T. SHOTWELL, LL.D., *General Editor.*

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RUSSIAN SERIES

SIR PAUL VINOGRADOFF, F.B.A., *Editor.*

(Died, December 19, 1925.)

MICHAEL T. FLORINSKY, M.A., *Associate Editor.*



# FOOD SUPPLY IN RUSSIA DURING THE WORLD WAR

UNDER THE GENERAL DIRECTION OF

P. B. STRUVE

FELLOW OF THE RUSSIAN ACADEMY OF SCIENCE, HON. LL.D. (CAMBRIDGE)

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## ORGANIZATION AND POLICY

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## FOOD PRICES AND THE MARKET IN FOODSTUFFS

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## EDITOR'S PREFACE

IN the autumn of 1914, when the scientific study of the effects of war upon modern life passed suddenly from theory to history, the Division of Economics and History of the Carnegie Endowment for International Peace proposed to adjust the program of its researches to the new and altered problems which the War presented. The existing program, which had been prepared as the result of a conference of economists held at Berne in 1911, and which dealt with the facts then at hand, had just begun to show the quality of its contributions; but for many reasons it could no longer be followed out. A plan was therefore drawn up at the request of the Director of the Division, in which it was proposed, by means of an historical survey, to attempt to measure the economic cost of the War and the displacement which it was causing in the processes of civilization. Such an "Economic and Social History of the World War," it was felt, if undertaken by men of judicial temper and adequate training, might ultimately, by reason of its scientific obligations to truth, furnish data for the forming of sound public opinion, and thus contribute fundamentally toward the aims of an institution dedicated to the cause of international peace.

The need for such an analysis, conceived and executed in the spirit of historical research, was increasingly obvious as the War developed, releasing complex forces of national life not only for the vast process of destruction, but also for the stimulation of new capacities for production. This new economic activity, which under normal conditions of peace might have been a gain to society, and the surprising capacity exhibited by the belligerent nations for enduring long and increasing loss—often while presenting the outward semblance of new prosperity—made necessary a reconsideration of the whole field of war economics. A double obligation was therefore placed upon the Division of Economics and History. It was obliged to concentrate its work upon the problem thus presented, and to study it as a whole; in other words, to apply to it the tests and disciplines of history. Just as the War itself was a single event, though penetrating by seemingly unconnected ways to the remotest parts of the world, so the analysis of it must be developed according to a

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plan at once all embracing and yet adjustable to the practical limits of the available data.

During the actual progress of the War, however, the execution of this plan for a scientific and objective study of war economics proved impossible in any large and authoritative way. Incidental studies and surveys of portions of the field could be made and were made under the direction of the Division, but it was impossible to undertake a general history for obvious reasons. In the first place, an authoritative statement of the resources of belligerents bore directly on the conduct of armies in the field. The result was to remove as far as possible from scrutiny those data of the economic life of the countries at war which would ordinarily, in time of peace, be readily available for investigation. In addition to this difficulty of consulting documents, collaborators competent to deal with them were for the most part called into national service in the belligerent countries and so were unavailable for research. The plan for a war history was therefore postponed until conditions should arise which would make possible not only access to essential documents, but also the coöperation of economists, historians, and men of affairs in the nations chiefly concerned, whose joint work would not be misunderstood either in purpose or in content.

Upon the termination of the War, the Endowment once more took up the original plan, and it was found with but slight modification to be applicable to the situation. Work was begun in the summer and autumn of 1918. In the first place a final conference of the Advisory Board of Economists of the Division of Economics and History was held in Paris, which limited itself to planning a series of short preliminary surveys of special fields. Since, however, the purely preliminary character of such studies was further emphasized by the fact that they were directed more especially toward those problems which were then fronting Europe as questions of urgency, it was considered best not to treat them as part of the general survey, but rather as of contemporary value in the period of war settlement. It was clear that not only could no general program be laid down *a priori* by this conference as a whole, but that a new and more highly specialized research organization than that already existing would be needed to undertake the Economic and Social History of the World War, one based more upon national grounds in the first instance, and less upon purely international coöperation. Until the facts of

national history could be ascertained, it would be impossible to proceed with comparative analysis; and the different national histories were themselves of almost baffling intricacy and variety. Consequently the former European Committee of Research was dissolved, and in its place it was decided to erect an Editorial Board in each of the larger countries and to nominate special editors in the smaller ones, who should concentrate, for the present at least, upon their own economic and social war history.

The nomination of these boards by the General Editor was the first step taken in every country where the work has begun. And if any justification were needed for the plan of the Endowment, it at once may be found in the lists of those, distinguished in scholarship or in public affairs, who have accepted the responsibility of editorship. This responsibility is by no means light, involving as it does the adaptation of the general editorial plan to the varying demands of national circumstances or methods of work; and the measure of success attained is due to the generous and earnest coöperation of those in charge in each country.

Once the editorial organization was established, there could be little doubt as to the first step which should be taken in each instance toward the actual preparation of the history. Without documents there can be no history. The essential records of the War, local as well as central, have therefore to be preserved and to be made available for research in so far as is compatible with public interest. But this archival task is a very great one, belonging of right to the Governments and other owners of historical sources and not to the historian or economist who proposes to use them. It is an obligation of ownership; for all such documents are public trust. The collaborators on this section of the war history, therefore, working within their own field as researchers, could only survey the situation as they found it and report their findings in the forms of guides or manuals; and perhaps, by stimulating a comparison of methods, help to further the adoption of those found to be most practical. In every country, therefore, this was the point of departure for actual work; although special monographs have not been written in every instance.

The first stage of the work upon the War History, dealing with little more than the externals of archives, seemed for a while to exhaust the possibilities of research, and had the plan of the history been limited to research based upon official documents, little more



could have been done, for once documents have been labeled "secret" few government officials can be found with sufficient courage or initiative to break open the seal. Thus vast masses of source material essential for the historian were effectively placed beyond his reach, although much of it was quite harmless from any point of view. While war conditions thus continued to hamper research, and were likely to do so for many years to come, some alternative had to be found.

Fortunately such an alternative was at hand in the narrative, amply supported by documentary evidence, of those who had played some part in the conduct of affairs during the War, or who, as close observers in privileged positions, were able to record from first- or at least second-hand knowledge the economic history of different phases of the Great War, and of its effect upon society. Thus a series of monographs was planned consisting for the most part of unofficial yet authoritative statements, descriptive or historical, which may best be described as about halfway between memoirs and blue-books. These monographs make up the main body of the work assigned so far. They are not limited to contemporary war-time studies; for the economic history of the War must deal with a longer period than that of the actual fighting. It must cover the years of "deflation" as well, at least sufficiently to secure some fairer measure of the economic displacement than is possible in purely contemporary judgments.

With this phase of the work, the editorial problems assumed a new aspect. The series of monographs had to be planned primarily with regard to the availability of contributors, rather than of source material as in the case of most histories; for the contributors themselves controlled the sources. This in turn involved a new attitude toward those two ideals which historians have sought to emphasize, consistency and objectivity. In order to bring out the chief contribution of each writer it was impossible to keep within narrowly logical outlines; facts would have to be repeated in different settings and seen from different angles, and sections included which do not lie within the strict limits of history; and absolute objectivity could not be obtained in every part. Under the stress of controversy or apology, partial views would here and there find their expression. But these views are in some instances an intrinsic part of the history itself, contemporary measurements of facts as significant as the

facts with which they deal. Moreover, the work as a whole is planned to furnish its own corrective; and where it does not, others will.

In addition to the monographic treatment of source material, a number of studies by specialists are already in preparation, dealing with technical or limited subjects, historical or statistical. These monographs also partake to some extent of the nature of first-hand material, registering as they do the data of history close enough to the source to permit verification in ways impossible later. But they also belong to that constructive process by which history passes from analysis to synthesis. The process is a long and difficult one, however, and work upon it has only just begun. To quote an apt characterization; in the first stages of a history like this, one is only "picking cotton." The tangled threads of events have still to be woven into the pattern of history; and for this creative and constructive work different plans and organizations may be needed.

In a work which is the product of so complex and varied coöperation as this, it is impossible to indicate in any but a most general way the apportionment of responsibility of editors and authors for the contents of the different monographs. For the plan of the History as a whole and its effective execution the General Editor is responsible; but the arrangement of the detailed programs of study has been largely the work of the different Editorial Boards and divisional Editors, who have also read the manuscripts prepared under their direction. The acceptance of a monograph in this series, however, does not commit the editors to the opinions or conclusions of the authors. Like other editors, they are asked to vouch for the scientific merit, the appropriateness and usefulness of the volumes admitted to the series; but the authors are naturally free to make their individual contributions in their own way. In like manner the publication of the monographs does not commit the Endowment to agreement with any specific conclusions which may be expressed therein. The responsibility of the Endowment is to History itself—an obligation not to avoid but to secure and preserve variant narratives and points of view, in so far as they are essential for the understanding of the War as a whole.

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In the case of Russia, civil war and revolution followed so closely upon the World War that it is almost impossible for history to

measure with any degree of accuracy the effects of the World War itself upon the economic and social life of the country. Those effects were so distorted by the forces let loose in the post-war years and so confused with the disturbances of the revolutionary era that the attempt to isolate the phenomena of the War from the data of civil war and to analyze the former according to the plan followed in the other national series of this collection has been a task of unparalleled difficulty. Over and above the intricacies of the problem and its illusive character, the authors of the Russian monographs have had to work under the most discouraging circumstances and with inadequate implements of research. For those who know the scarcity of the documentary material available, it will be a matter of no little surprise to find, in the pages of this Russian Series, narratives and substantiating data which measure up so well in comparison with those prepared by the collaborators in other countries. The achievement of the Russian Division of the History is, all things considered, the most remarkable section of the entire collection. This is due, in the first place, to the fact that the authors, all of them exiles who live in foreign lands, have not only brought to this task the scientific disciplines of their own special fields but also an expert knowledge drawn from personal experience which in several instances reached to the highest offices of State.

While these volumes in the Russian History constitute so very considerable an achievement, they cannot in the very nature of the case cover with adequate statistical or other specific data many of the problems with which they deal. No one is more conscious of their shortcomings in this regard than the authors themselves. Nevertheless, with inadequate material and under hampering circumstances they have prepared a body of text and a record which, if admittedly incomplete as history, contains at least one element that would otherwise be lost for the future understanding of this great crisis in human affairs, an element which no other generation working from Russian archives could ever supply. We have here the mature comment upon events by contemporaries capable of passing judgment and appraising values, so that over and above the survey of phenomena there is presented a perspective and an organization of material which will be a contribution to history hardly less important than the substance of the monographs.

The Russian Series was in the first instance planned by one of the



most distinguished of Russian scholars who had long been a resident of England, Sir Paul Vinogradoff, Corpus Professor of Jurisprudence at the University of Oxford. To the planning of the Series Sir Paul gave much time and thought. His untimely death in December, 1925, prevented him from seeing its fruition or from assuming the editorial responsibility for the texts. Nevertheless, the Series as a whole remains substantially as he had planned it.

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The volume now offered to the public deals with one of the most intricate and also one of the most important problems of Russian war-time economic policy. The organization of food supply in a country so vast as the former Russian Empire, so rich in agricultural produce, and at the same time so crippled by the inadequacy of her technical equipment, the disorganization of her railroads, profiteering, and the inability of the Government to shape a comprehensive food policy, presents a subject of fundamental interest to the student of economic history.

The Carnegie Endowment has been fortunate to secure for the carrying out of this tremendous undertaking the collaboration of men eminently fitted for the task. The volume has been written under the general direction of Professor Peter B. Struve, Fellow of the Russian Academy of Sciences, whose name is familiar to all students of economics. It is, perhaps, less known outside Russia that from the middle of 1915 until the Revolution of March, 1917, Professor Struve acted as representative of the All-Russian Union of Zemstvos in the Special Council on Food Supply, a position he accepted on the request of the late Prince George E. Lvov, then President of the All-Russian Union of Zemstvos and eventually President of the Russian Provisional Government. In this capacity Professor Struve took an immediate part in the shaping of Russia's food policy during the War. In addition to the general planning and direction of the volume Professor Struve has contributed the Introduction in which the lessons of Russian policy of food control are considered from the point of view of the general economic history of the World War.

Part I, which deals with the organization and policy of food supply, has been prepared by K. I. Zaitsev, formerly Assistant Administrator of the Special Council on Food Supply and head of the Department of Municipal Economy in the Ministry of the Interior

under the Provisional Government, now assistant professor at the Russian Faculty of Laws in Prague, and by N. V. Dolinsky, the learned expert of the Special Council on Food Supply, later attached to the Ministry of Food Supply, and at present professor at the Academy of Commerce, Varna, Bulgaria.

Part II, dealing with the policy of prices, has been prepared by S. S. Demosthenov, the learned expert of the Special Council on Food Supply; in this capacity he organized an investigation into the movement of prices of foodstuffs during the War. M. Demosthenov is now professor at the University of Sofia, Bulgaria.

J. T. S.

## INTRODUCTION

RUSSIA, like most other countries, was not prepared for the War. But leaving aside questions of political responsibility for the War—questions that do not fall within the scope of the present work—it must be admitted that none of those countries which were drawn into the struggle in 1914 had been prepared, nor could they be prepared, for a war which, in its long duration and economic consequences, proved a real surprise to all the belligerents. Not only had the economy of the War not been foreseen, even in its broad features, but, on the contrary, the general view regarding its economic implications was based upon fallacious assumptions, all of which were to be demolished by the actual course of events.

As regards Russia, these fallacious assumptions were of two kinds: partly optimistic, partly pessimistic. It was believed that the economic backwardness of Russia and the inadequate development of her commerce and division of labor ought to render Russia less sensitive to the economic shocks of war. On the other hand, there was a widespread notion that war was bound to aggravate the impoverishment of the people and tend to sap the strength of the nation. Both assumptions, however, although in different degrees and in different senses, were belied by the results. The history of Russia's war-time food supply is so instructive precisely because it reveals a previously unsuspected complexity of economic processes at work even in backward Russia, as a concomitant of the War, which profoundly affected all aspects of her economic life.

The diversion of an enormous number of hands from productive and, above all, agricultural labor to war purposes proved not quite so simple as might have been imagined. This diversion, of course, impaired the productive power of agricultural labor; but it involved also the shifting of the responsibility for feeding a vast number of the peasant population from their own shoulders to those of the State. Furthermore, the War led to an immense actual increase in the demand for agricultural products.

What factors determined the excess of actual demand for agricultural produce over its actual supply in an agricultural country that had ceased to export grain, and how this excess manifested itself, will be discussed in Part II of this volume. It reveals the full



significance of the fundamental feature of Russia's economic system, as affecting her war-time organization: it shows the disproportion between the huge agrarian basis of the country and its flimsy industrial superstructure, a disproportion plainly indicative of Russia's comparative economic backwardness and inferiority.

The condition of the Russian market in foodstuffs during the War and the serious difficulties experienced in the work of supply were due precisely to the backwardness and inferiority of the economic organization of the country, and not to any absolute scarcity of alimentary resources. Such is the basic conclusion to which we are led by the careful analysis of the market presented in this volume. The ratio between demand and supply in the foodstuffs market was far more favorable to demand in Russia than it was in the Central Powers and in the United States, at least from the moment when it became the task of the United States to supply most of the foodstuffs to the countries allied against Germany. But the general economic backwardness of Russia prevented her from benefiting by this favorable ratio. This result was due in an important degree—not only to the so-called disorganization of transport, which was in fact merely inadequacy of transport—but also to the insufficient industrial output of the country, as a result of which the surplus of agricultural produce was met by a less than adequate supply of industrial produce.

These differences in the Russian, German, and American war-time markets for agricultural produce determined profound differences in price policies and in the public opinion regarding the aims of these policies. In the Russian price policy, there ruled in the beginning, and still prevailed for a long time afterward, the administrative-fiscal point of view, that the organs of government should receive assistance in the operation of supplying the needs of the army. As for the foodstuffs market in its broad aspect, that is to say, from the point of view of the population as a whole, the Government took almost no interest whatever in it during this period. The Government deliberately adopted that division of prices, one for the Government (the army) and another for the population, which the United States rejected upon its entry into the War. The connection existing between the special war market and the general market in foodstuffs was ignored, and a division of prices was even thought to be desirable in the interest of the agricultural producer. This point of view was

adhered to by the Minister of Agriculture, M. Krivoshein, as the writer knows through close association with this prominent director of Russia's food policy during the War. The same view was upheld by the very able M. Rittikh, the last Minister of Agriculture in Imperial Russia. The writer himself was opposed to this policy, because, as an economist, he regarded the very idea of a division of the market and of prices as most undesirable and dangerous.

The early appearance, in the German price policy, of the idea of a "commensurate" or "proper" price (*"der angemessene Preis"*), corresponding to the idea of the "fair price" of the canonists and administrative law of the Middle Ages, is absolutely without analogy, at least in so far as the producer is concerned, in Russian price policy or Russian public opinion. On the other hand, Russian public opinion, and, especially, its prevailing liberal trend, were utterly remote from those considerations regarding the importance of setting prices that could serve as stimulants of production which played so large a part not only in British but also—and this is still more noteworthy—in the price policies of the United States; considerations which found such clear expression in the laws guaranteeing minimum prices for wheat.<sup>1</sup> Until the outbreak of the Revolution, Russian public opinion had no conception of such ideas, as the writer had occasion to discover while working on the Special Council on Food Supply. As regards the production of the staple foodstuffs, this attitude was due, in a certain measure, to the very favorable situation—from an abstract point of view—of the Russian foodstuffs market at the time. There could be no thought even of any real scarcity of foodstuffs within the empire as a whole. The idea of using prices to stimulate production remained alien to the Russian public mind, even in those cases where it would have been not only perfectly legitimate but seemingly the obvious thing to do.

The Russian war-time price policy in the domain of food supply was very rudimentary as compared with that adopted either in Germany, Great Britain, or the United States. Accordingly, "war economy," or so-called "military socialism," in the matter of foodstuffs, never attained in Russia that extensive and practical development which it reached in Germany and the other belligerent countries. In Russia, there seemed to be no necessity for so strict an or-

<sup>1</sup> These considerations played a certain part also in German price policy.

ganization of the economic life, and especially of the food supply, as had been inaugurated in Germany. But, to begin with, which is even more important, Russia had no possibility of trying this system. The extensive and intensive regulation of prices practiced by Germany could be, and actually was, established only upon the basis of (1) a more or less extensive inventory and control of agricultural stock, and (2) the fixing of the volume of agricultural production. In the United States, again, the regulation of prices could be, and was, based upon the regulation and utilization of the entire commercial machinery.

In Russia, neither system was practicable. This is why the Russian monopoly was doomed to failure from the outset. The mass of agricultural producers eluded the reach of the State, and the private grain-trading machinery under government control was, in effect, gradually demolished. The regulation and utilization of the machinery of commerce by government in the United States in 1917, and its disruption and destruction in revolutionary Russia, present a most striking contrast, which is highly instructive sociologically and historically.

The insufficiency of the railway transport, its irremediable inadequacy for the exceptional demands of an exceptional war, resulted in the so-called "permit system of transportation." Up to the Revolution, this system functioned more or less smoothly, palliating both the difficulties of transport and the rising prices resulting therefrom. On the groundwork of this system we ought to have established our whole policy of supply and prices. But this was not done with the proper vigor and consistency until after the March Revolution, and then it was too late, as the supply organization was irretrievably swept into the general economic chaos. But the principal obstacle to a sensible price policy in Russia lay in the lamentable failure of both Government and public opinion to grasp these two fundamental economic propositions: (1) a war-time price policy should aim at the widest possible leveling and unification of prices, because their disparities furnish the basis for speculation, which in time of war is left without the automatic correctives of peace-time; (2) the price level is always a factor determining the extent of production and (effective) supply. The inadequacy of transport was of itself sufficient to disunite the market; the tendency of the organs of government to exert pressure upon prices in army purchases, in favor of



the State, disrupted, as we have already pointed out, the market entirely.

The history of the establishment of fixed prices in all transactions, in 1916, presents a great deal of interest. At first, not only the representatives of the Government (especially those of the State Audit Department, who invariably took an extreme fiscal attitude in the discussion of economic problems) in local conferences, but also the representatives of non-official organizations, were found objecting in a large number of instances to prices that seemed too high. Then, after the work had been transferred to the Special Council, the latter accomplished a truly prodigious task, if we consider the short time at its disposal, in obtaining the harvest figures for 1916 and establishing the actual cost of grain to the producer. Also, the Special Council collected all the necessary data regarding free market prices, wages, etc. The project of fixed prices was very carefully considered; but, in spite of all haste, it could not be completed before September, 1916. Thus it happened that the producers, awaiting the new fixed prices and anxious to influence them, stopped selling grain in July and caused something like a paralysis of the market.

Notwithstanding these ominous symptoms, public agitation, effectively supported by the Government in the person of the Minister of War, sharply criticized the prices worked out by the secretariat of the Special Council on Food Supply and approved by the majority of that Council. A joint session of the Special Council on Food Supply and the Special Council on National Defense revised these prices downward. The writer, who represented the All-Russian Union of Zemstvos in the Special Council, was unable, for personal reasons, to attend this session and he formulated his view in the press as follows:

Being in favor of the extension of fixed prices to all transactions,<sup>2</sup> I consider their reduction below those originally proposed, which were established by a congress of competent representatives and approved by the Minister of Agriculture, a grave economic blunder. The situation of the grain market, created by the specific war-time conditions made it, and still make it, necessary to avoid most scrupulously the fixing of inadequate rather than excessive prices. It was precisely the extension of fixed prices to all transactions, coupled with the imperfect adapta-

<sup>2</sup> The need of solving the problem in this sense was stressed by me in my report to the congress of authorized representatives of the All-Russian Union of Zemstvos in the spring of that year.

tion of the Government's grain purchasing machinery to new, immense problems, that dictated the greatest circumspection in this matter. The stand of the fiscal branches of the Government may be understood as they have always been opposed to an extension of fixed prices to all transactions. These departments safeguard the immediate fiscal interests of the Crown, seeing to it that the Government shall pay as little as possible for its purchases. But I cannot regard such a defense of the fiscal interests of the Crown at all costs, under the conditions of the World War, as at all statesmanlike, because the difficulties of supply that are inevitably bound to follow from a mistaken price policy will ultimately cost the State far more than any excess that the Government may now have to pay on its purchases. This is why I consider the attitude of public opinion toward fixed prices, in devoting attention merely to the *level* of those prices, as still more mistaken. If we have to choose between a high, even excessive, level of fixed prices and the mobilization of an enormous requisitioning organization directed against the mass of agricultural producers who hold a surplus of grain, it stands to reason that what we should fear most is the fixing of too low, or even merely inadequate, prices. This is the more certain since the actual cost cannot be established with any degree of fairness under existing conditions, and the computed average cost of production is in danger of proving in very many instances lower than the actual cost of production. All in all, it is to be regretted that the question of a price level for foodstuffs in time of war should have become the object of something like a struggle, and that advanced public opinion, in so far as price levels established by the producers themselves are concerned, should have shown itself incapable of realizing that the very possibility of obtaining the supplies may depend upon a proper fixing of prices, and that, considered from this angle, the tendency toward a reduction of prices is simply dangerous. Such a tendency is still less justified in the present case since, in the person of the agricultural producer, we are here dealing with the overwhelming majority of the Russian people—the peasantry.<sup>3</sup>

It must be emphasized that the persistent agitation against alleged exorbitant grain prices was carried on at a time when the Russian grain market was in a state of paralysis and when about 78 per cent of "commodity grain," that is, grain actually sent to the market from provinces with a surplus, came from the peasants, that is to say, was grain raised by small farmers.

Indeed, as we look back today and try to reconstruct the history

<sup>3</sup> Cf. *Russkaya Misl*, Moscow-Petrograd, October, 1916, pp. 5-6.

of the Russian food supply during the War, the pressure in favor of lower food prices and the recommendation of a compulsory fixing of these prices at a low level, to be reinforced by the right of requisition, strike us almost like a social psychosis. There seems to have been at work some kind of unlimited faith in the power of the official fiat to render economic laws inoperative!

In the levying operations of M. Rittikh, Minister of Agriculture, the principle of a compulsory alienation of grain from the growers was complicated by a system of bonuses for prompt delivery, amounting in fact to a raising of those very same fixed prices which had been reduced but a short time previously under the pressure of the public opinion to which we have just referred. This increase in the actual prices tended somewhat to mitigate the unfavorable aspects of the levy.

At the present day it is perfectly obvious that neither the "splitting" of prices originally sponsored by the Government, which took charge of the food supply—a policy defended to the last by some large landed interests, nor regulation designed to keep prices compulsorily at a low level or even to effect the further reduction favored by progressive public opinion and the military bureaucracy, could have met the actual demand for foodstuffs on the Russian market. In retrospect, it seems clear that the only sound price regulation during that period would have consisted in guaranteeing to the peasant liberal minimum prices for a stated length of time, coupled with the simultaneous provision of maximum prices for a stated length of time; in addition to this, the Government should have reserved to itself and openly proclaimed the right to reduce at the expiration of the stated term the minimum as well as the maximum. Whether such a system would have succeeded or not, the fact remains that it would have made it possible to try the experiment of price regulation with the least risk of discouraging the market.

Still, the fundamental difficulties in the organization of the war-time food supply were caused neither by the mistakes of the Government nor by the fallacies of a public opinion unaccustomed to practical economic reasoning. These difficulties were found rather in the palpable and striking disparity between the agricultural production of a country isolated from its foreign markets, and its industrial machinery, which had been suddenly called upon to satisfy an enormous, almost insatiable war demand.



Russia did not suffer during the War any agricultural decline, but rather her agriculture was confronted with an inadequate commodity demand for its output. The diversion of farm labor to the army, although curtailing production, proved entirely incapable, for the reasons previously stated, of offsetting this actual limitation of the demand due to inadequate transport facilities and, still more, to the insufficiencies of the industrial equipment.

Essentially, however, this economic difficulty did not partake of the nature of a catastrophe. Although this is not a general history of Russia during the War, one may venture to suggest that the student of economic factors will not ascribe the political catastrophe that overwhelmed Russia in 1917 to the economic condition of the country in general and its food situation in particular. For an explanation of the Revolution, first and foremost, the political forces should be considered. Herein lies the profound difference between Russia's war-time economy and that of the Central Powers, whose defeat was almost automatically prepared by the inexorable march of economic forces and, especially, by those of the food supply. And even more: to a certain extent, both the long duration and the nature of the Russian civil war of 1917 (resistance of the fertile South and East to the deficient and industrialized North) are to be explained precisely by a very heavy accumulation during the World War of foodstuffs in vast areas—an accumulation the cause of which must, in turn, be sought in the standstill of exports and the inadequacy of industrial production during the same period. Here was not a case of anaemia but rather a pathological blood congestion of agriculture, and it may be said that the war-time accumulations of all stocks in general and of foodstuffs in particular sustained the civil war of 1917 and succeeding years.

Such is the objective, purely economic relation between phenomena disclosed by the historical presentation and the theoretical analysis of the food supply of Russia during the World War. This relation is very far, indeed, from the usual formulas that journalists apply to the interpretation of these phenomena.

PETER B. STRUVE.

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### ORGANIZATION AND POLICY

#### CHAPTER I

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I.

ORGANIZATION AND POLICY

BY K. I. ZAITSEV  
AND N. V. DOLINSKY



# CHAPTER I<sup>1</sup>

## ORGANIZATION OF FOOD SUPPLY

### I. GENERAL ORGANS

#### *First Organization of Supply.*

WHEN the War broke out, no one was able to foresee its duration nor the strain that it would impose on the country. In particular, the extensive intervention of the Government in the economic field, for the purpose of provisioning the army, was by no means due to any preconceived and systematically evolved plan, but came about through a succession of concrete measures imperatively dictated by the exigencies of the moment. It was only the aggregate of all these measures, the result of a complex and gradual process unforeseen by the authors and executors of those measures, which was to assume the form of a complete system of governmental regulation of the economic life of the nation, on an unexpected and unprecedented scale.

<sup>1</sup> Part I has been prepared mostly from official publications of the Special Council on Food Supply and of its successor, the Ministry of Food Supply. Use has been made also of a number of publications issued by the Union of Towns, the Union of Zemstvos, and of *Trudi Kommissii po Izuchenyu Sovremennoi Dorogovizni* (*Works of the Committee for the Study of the Present High Cost of Living*), published by the Chuprov Society. Among post-war sources the following were particularly valuable: *Narodnoe Khozyaistvo v 1916 Godu* (*National Economy in 1916*), published by the Institute of Economic Research, Petrograd, 1920-1921; N. D. Kondratev, *Rinok Khlebov i Ego Regulirovanie vo Vremya Voini i Revolutsii* (*The Grain Market and Its Regulation during the War and the Revolution*), Moscow, 1922.

Among the official publications the following must be mentioned: G. K. Guins, *Uzakoneniya i Rasporyazheniya po Prodovolstvennomu Delu za 1914-1917 Godi* (*Laws and Ordinances concerning the Food Supply Organization*), Part I, Petrograd, 1917; *Obzor Deyatelnosti Osobago Soveshchanya* (*Reports of the Special Council*), for the period from August 17, 1915, to February 17, 1916, together with supplements covering the three following months; the periodical publications of the central organs for food supply, which appeared under various titles, covering the period up to the Bolshevik revolution.

Other bibliographical references will be found in footnotes.



From the very beginning of the War, the enormous size of the army called to the colors was seen to be out of all proportion to the regular supply organization of the War Department—the Army Supply Department—and the result was that, immediately after the declaration of war, the Council of Ministers, by a resolution of August 1, 1914,<sup>2</sup> laid the duty of assembling food and fodder for the needs of the army upon a civilian department, the Department of Agriculture (subsequently known as the Ministry of Agriculture). This department was the most efficient in a bureaucratic sense, and its chief was M. Krivoshein, the most distinguished member of the Council of Ministers at that time and, generally speaking, one of the greatest Russian statesmen of the close of the nineteenth and beginning of the twentieth century. The choice was dictated, in part, by the consideration that he enjoyed the confidence and respect not only of the Emperor and of government circles, but also of the general public. For it was intended that the newly created supply organization should be supported not only by the bureaucracy, but by public enterprise as well. In addition to the many local representatives of the Ministry of Agriculture and of other government departments, such as local bank inspectors, officials of the Ministry of Finance and of the food supply section of the Ministry of the Interior, managers of State Bank granaries and others, the coöperation of the zemstvo institutions and of the communal, agrarian, and financial organizations was to be enlisted in the supply work. The unofficial organizations were to participate in three different ways. The main pivots of the supply system were the commissioners of the Department of Agriculture. All commissioners were selected and appointed directly by the head of the Department of Agriculture. He was free to appoint to these posts local provincial governors or his own officials; or he might offer the appointment to some public leader, either a member of the State Duma, or a president or other member of a provincial zemstvo board, or a member of a commercial exchange committee, and so on. As a matter of fact, a large proportion of commissioners—and an overwhelming majority of them in those provinces which were of primary importance to the food

<sup>2</sup> All dates in this volume are given in accordance with the Russian calendar.

supply—were selected among public men, especially among those connected with the zemstvos.<sup>3</sup>

This was a personal form of participation in the supply work by representatives of the general public. But the zemstvos as well as other organizations were permitted to share also in their corporate capacity. Thus, for instance, they might be commissioned to make purchases and collect supplies. As institutions, they were empowered to undertake some more or less responsible tasks in the supply campaign. In these instances the zemstvos or other public organizations had the right to delegate their own representatives to the receiving commissions, thus taking part in the supply work under a third form—that of being officially represented in the supply administration. This kind of representation was specially provided for, apart from the direct share of the zemstvos in the work of supply. Within the territory of a district commissioner the zemstvo might have a representative of its own, who would assist the commissioner in solving his problems.<sup>4</sup>

These fundamental features of the supply organization, adopted practically from the first day of the War, were preserved right up to the Revolution.

As regards the organization at the center, two basic organs for the administration of purchases and storage were formed at the Ministry of Agriculture. The one consisted of the High Commissioner for Grain and Fodder Purchases for the Army (whose condensed telegraphic address, *Khlebarmya*—from *khleb*—grain, and *armya*—army—was commonly used to designate the entire organization), with his secretariat; the other was composed of the High Commis-

<sup>3</sup> At the beginning of the campaign of 1916-1917 the commissioners were: 5 provincial governors, 22 presidents of provincial zemstvo boards, 3 members of the State Council, 6 members of the Duma, 2 presidents of exchange committees, and 14 others.

<sup>4</sup> The broad public character of the supply organization was emphasized by the High Commissioner, M. Glinka, at the commissioners' convention in August, 1916, when he said: "I must point out that this whole organization, as stated repeatedly on former occasions, has one extraordinary feature: it is not definitely subordinated to the department, but rests entirely upon the free will of its members to render service to the cause of provisioning our gallant troops. My position as High Commissioner, called upon to furnish instructions and directions to the local commissioners, has been most unusual and might have been exceedingly difficult, when we consider that it lacks real authority."

sioner for Meat, Fish, and Vegetable Purchases for the Army, with his own secretariat. The first High Commissioners were the Associate Minister of Agriculture, M. Glinka, and the member of the Minister's Council, S. N. Lenin, the former of whom played a leading part in the supply of the army during the highly responsible period of the first two years of the War.

There was now feverish activity. As Krivoshein said, the distinction between "we" and "they," which had been customary in Russia when speaking of the bureaucracy, on the one hand, and the public, on the other, was obliterated and discarded. The buying and storing of supplies went on apace. The relations between the Army Supply Department and the new, civilian supply organization of the army were established on the following simple basis: the War Department was to order whatever supply of foodstuffs it might require for a definite period, and it was to receive and distribute among the troops the supplies that were already stored. The Department of Agriculture, with its commissioners, executed the orders, that is, purchased and collected the required supplies, and delivered them at whatever points it was directed to do so. This arrangement was retained all through the following period. Broadly speaking the whole vast organization of the food supply was to become merely a further development and expansion of the original organization just described, but chiefly of the *Khlebarmya*.

#### *Difficulties in the Work of Supply.*

The immense food supplies left in the country as a consequence of the closing of the export market, which, previous to the War, had absorbed a considerable surplus, would apparently have obviated the necessity for extraordinary measures to assure an adequate supply for the army. But it proved otherwise in practice. For reasons detailed elsewhere in the present volume, the free market failed to bring forth the necessary supplies with sufficient promptitude, but demanded, expected, and brought about higher prices. The urgency of the orders given to the purchasing organs made it impossible to apply the usual methods against price-raising tendencies, namely, consistency and patience; and the vast volume of orders, and, most important of all, the continuous demand for supplies, did not permit of the offer of higher prices with a view to a sudden withdrawal from the market after the needed supplies had been obtained. Increases



of price, leaving the sellers to expect further increases in the near future, only aggravated the tightness of the market and thus completed the vicious circle of the price policy.

*Introduction of Compulsory Measures.*

As early as February, 1915, a conference of purchasing commissioners placed on record the emphatic statement that the work could not be carried on exclusively on a normal commercial basis. This view was strongly supported by the War Department, and as a result was promulgated the highly important Imperial ukase of February 17, 1915, committing the Government to compulsory regulation of the food supply. Under the provisions of this decree, the commanders of the several military districts of the country were empowered, in agreement with the provincial governors and the commissioners of the Ministry of Agriculture, (1) to prohibit the removal of supplies required by the army to other markets; (2) to fix prices of food and fodder products for the needs of the army; (3) to requisition, at a price reduced by 15 per cent, if the owner refused to sell at the fixed price. This placed a very powerful weapon in the hands of the supply authorities. The embargo, severing the connection between a given area and other markets, temporarily isolated that area, thus creating a considerable additional incentive to deal with the local government buyers. The establishment of obligatory prices, coupled with the sanctioning of requisitions at even lower rates, gave the owners of visible supplies cogent reasons for not delaying the legitimate disposal of those supplies. The commissioners, thanks to the orders issued by the military authorities, were now given some real power to deal with visible stocks of foodstuffs. The favorable results were not slow in showing themselves, and during the next few months the purchasing operations proceeded successfully.

This success, however, was to prove ephemeral, and was achieved at a very high cost. The principal areas of supply were found to be suffering from the uncoördinated, often purely casual and ill-considered, and too drastic, orders of the military authorities. The embargoes disorganized the economic exchange of the country, arbitrarily excluding from this exchange the normal sources of supply, which were sometimes the only sources available. The threat of requisition at fixed, punitive rates tended to paralyze the process of accumulation of visible supplies. Besides, the policy of isolating the

supply areas by means of an embargo could naturally not be maintained consistently: prices in the consuming areas, when the latter were already practically isolated owing to the reduced capacity of the railways to carry private consignments, were still further increased by the embargoes; for these automatically produced a still heavier demand, which was prepared to pay even higher prices if only it could get the supplies moved from the closed territory. Two different types of dualism now make their appearance in price scales, to remain the characteristic feature of the entire succeeding period: first, a disparity of prices as between producing and consuming areas; second, a disparity of prices as between those fixed officially and applied to government purchases, and the free, competitive market prices in private transactions within the same supply area. The problem of the high cost of living presented itself in the consuming regions, worrying and perplexing the local authorities and public, compelling at last the local interests to protest against the embargoes and even to defy them by going to the prohibited markets to fetch for themselves the required supplies.

It was becoming evident that it would be impossible to procure supplies for the army if the part played by the supply areas in the economic life of the nation as a whole was to be utterly disregarded. The force of circumstances was such as to lead irresistibly from uncoördinated and casual local measures toward some well-considered and coördinated policy of supply under some centralized control. The public mind had as yet failed to grasp the complexity and magnitude of the task. But these were none the less real. No longer was Russia to be permitted to remain something like a federation of military districts, each with its own policy dictated by the immediate needs of purely local army supply and, moreover, with the military chiefs holding purely personal views as to the extent of these needs and the manner of satisfying them. This state of things was the less tolerable since the military authorities were inclined to underestimate the importance of the rear as compared with the front; for the sake of momentary results in their own supply work, they had no compunction in ruthlessly cutting the most vital economic threads and connections, injecting into the delicate and complicated task of supply their military simplicity and finality, and greatly exaggerating the importance of orders and prohibitions in the economic field.

*New Problems.*

A new phase was beginning in the organization of supply, and it was hastened by the following three tendencies that were making themselves felt more and more. In the first place, there was the need of some kind of coördination and mitigation of the drastic measures prescribed by the ukase of February 17, 1915. In the second place, the application of these measures had somehow to be demilitarized and at the same time brought into closer relation with the supply problems of the population at large. In the third place, as a logical consequence of the second point, there arose the separate problem of supplying the needs of the population: parallel with the problem of supplying the army, the time had come also to consider the stupendous task of fighting the rising cost of living in the consuming areas.

*The Principal Committee on Food Supply.*

All these problems required that a single center should be devoted to their study and solution. On May 19, 1915, by resolution of the Council of Ministers adopted in conformity with Article 87<sup>5</sup> of the Fundamental Laws and ratified by the Emperor, such a center was created, composed of the Minister of Commerce and Industry and the Principal Committee on Food Supply organized under his jurisdiction. This organization was now entrusted with the general direction of the work of food supply throughout the empire, assisted by the grant of very extensive powers in its dealings with the military and civil authorities and with the population at large.

However, the Principal Committee on Food Supply had not even commenced to function when it was abolished. This was in consequence of the creation of other centers, which were to manage the entire business of supplying the needs of the War down to the March Revolution.

*The Special Councils.*

On June 19, 1915, the State Duma was again convoked. It was asked to consider a bill for the creation of a Special Council, under

<sup>5</sup> Article 87 enabled the Government to issue, during recesses of the Duma and State Council, decrees on such subjects as would ordinarily require legislative consideration, if extraordinary circumstances appeared to make it imperative.



the chairmanship of the Minister of War, which should serve as a kind of clearing house, or unifying center, for all problems besetting the Government in connection with the War, in all their complexity, both in the military and economic field. The Duma, however, deemed it undesirable to establish so far-reaching a centralization, which was to be adjusted especially to the functions of the military establishment; instead, the Duma sponsored the plan of creating several centers under the appropriate government departments, to deal with the basic supply problems. The result was that four of the so-called Special Councils were formed: (1) the Special Council on National Defense, under the Ministry of War, (2) the Special Council on Transport, under the Ministry of Transport, (3) the Special Council on Fuel, under the Ministry of Commerce and Industry, (4) the Special Council on Food Supply, under the Department of Agriculture. The last-named Council naturally superseded the Principal Committee on Food Supply. The law establishing these Special Councils was confirmed by the Emperor on August 17, and on the 19th it was officially published. On August 31, the Special Council on Food Supply, presided over by M. Krivoshein, held its first session.

All Special Councils were organized on the same pattern. They ranked among the highest organs of the State; no government institution or official could issue orders to them or demand an account of them. At their head stood the corresponding Ministers, and their membership included representatives of the government departments concerned, of the State Duma and State Council, and of certain public organizations especially devoted to the work of supplying the needs of the army. The latter organizations were: the All-Russian Unions of Zemstvos and of Towns, and the war industries committees.<sup>6</sup> The Chairman of the Special Council was at liberty to invite to its sessions any person whose presence might seem to him useful, in particular—and this was expressly provided for by the law—representatives of organized trade and industry.

The Special Council might appoint its own committees, their num-

<sup>6</sup> The Special Council on Food Supply had 24 members: 7 members of the Duma, 7 members of the State Council, 2 representatives of the Unions of Zemstvos and of Towns, 8 representatives of government departments including 3 representatives of the Department of Agriculture. There were thus 16 representatives of the general public against 8 representatives of the Government.

ber and purpose to be determined by the Chairman after discussion with the Council. The members of committees were chosen by the Council, and the chairmen were appointed by the Chairman of the Council. A committee chairman might invite to the meetings of the committee any person he considered useful, while those members of the Special Council who were not included in the committee had the right to be present at its meetings. Matters brought forward on the initiative of individual members might be submitted to the Council for discussion only if recommended by the Chairman. The secretariat of the Special Council was made part of the corresponding government department. The object of each Special Council was stated to be the "discussion and coördination" of all measures belonging to its own domain of supply work. To realize this object, the Chairman of the Special Council was armed with a veritable arsenal of plenipotentiary powers to deal with the military and civil authorities, as well as with the population in general.

We shall now examine in detail the powers thus conferred upon the Chairman of the Special Council on Food Supply. He was authorized (1) to require of all government, municipal, and public institutions and individuals their coöperation in the execution of the duties imposed upon the Special Council; (2) to require of all firms and undertakings, including those privately owned, that they should accept and execute orders and deliveries in preference to all other orders and deliveries, even if the latter had been agreed to already, and to require exhaustive information about the business of such enterprises; (3) to demand of all persons and institutions storage room for food and forage, excepting railway warehouses intended for the storage of ordinary consignments; (4) to requisition all such enterprises and storage facilities; (5) to carry out, with the assistance of specially authorized individuals, an inspection of commercial and industrial undertakings, and insist that they produce their books and documents to show the amount of food and fodder supplies in their possession, and the obligations assumed by them in order to obtain or deliver such supplies; also, to demand copies of such books and documents, in order to extract from them the required information; (6) to permit the collection of food and forage supplies by any means and on any condition, without any limitation of cost; (7) to overrule orders and dispositions of all governmental and other institutions affecting (a) the collection, shipment, and distribution of

foodstuffs intended for the relief of the urban and rural population, (b) the establishment of rules and regulations, in various localities, for the trade in foodstuffs and for limited or compulsory prices in selling such foodstuffs; (8) to take inventories of food and fodder supplies throughout the empire, as well as in separate localities, prescribe the method of obtaining such information, and check the supplies on hand; (9) to issue temporary regulations for storage and for embargoes on the exportation of food and fodder from the empire as a whole, or from specified localities; (10) to order general as well as specific requisitions of foodstuffs, fodder, seeds, bags, and sacks, and determine the manner of requisition and of payment for products so requisitioned; (11) to calculate the credits required to carry out all measures connected with the work of the food supply organization, determine the order in which such credits should be apportioned, the method of accounting, and settle all problems connected with the conclusion and execution of government contracts in the domain of food supply.

All these powers were granted by law to the Chairman of the Special Council, whose authority in this way acquired a dictatorial nature. On the other hand, no measure was to be taken until it had been discussed in the Council; the latter, although endowed only with an advisory authority, was supposed to be constantly coöperating with its chairman. Still, in case of emergency, a measure could be taken without preliminary deliberation in the Council, the Chairman being merely obliged to report it to the next meeting of the Council. For local work, the Chairman might appoint his commissioners, and these, in turn, might also form Special Councils, to which the local representatives of the Unions of Zemstvos and of Towns and of the war industries committees had to be invited. Credits for the work of the food supply organization were granted by the Council of Ministers, and in case of emergency the funds would be advanced by the Ministry of Finance on the demand of the Chairman of the Special Council.

The embargo orders issued by the military authorities (referred to previously) required the consent of the Chairman of the Special Council and preliminary discussion in the Council. Every measure adopted by the Chairman of the Special Council had to be communicated without delay to the Minister of War who, as Chairman of the Special Council on National Defense, was empowered (1) on



his own authority to suspend any order of the Chairman of the Special Council on Food Supply and (2) to submit such orders to the deliberation of the Special Council on National Defense, inviting to these deliberations the Chairman and members of the Special Council on Food Supply.<sup>7</sup> By this means it was made possible to coördinate the work of the Special Councils. In the event of disagreement, the decision rested with the Council of Ministers.

*Relations between the Organs of the Special Council and the Original Supply Organs.*

As a result of the creation of the Special Council on Food Supply, two closely allied and interdependent functions were found concentrated under the Ministry of Agriculture: (1) the purchase and storage of food supplies for the army, (2) the discussion and coördination of all food supply measures throughout the empire. The composition of the purchasing organs remained unchanged, but they found themselves naturally subordinated to the new, coördinating organization. A personal union between these two organizations was established through the appointment of M. Glinka, in his capacity of Associate Minister and High Commissioner for Grain and Fodder Purchases, to the post of Deputy Chairman of the Special Council on Food Supply. But final arrangements as regards the mutual relations between the central food supply organs of the Ministry of Agriculture were made only in June, 1916, when M. Melnikov was appointed High Commissioner for Meat, Butter, Hay, and Vegetable Purchases, and placed under the direct authority of M. Glinka.

The task of representing the Special Council at all the central organizations and institutions dealing with the food supply, and the preparation of all business for deliberation and report, were concentrated in the secretariat of this Council, which, with the secretariats of the High Commissioners, gradually developed into a separate department, actively directing food supply measures on a nation-wide scale, under the decisions of the Special Council.

<sup>7</sup> Such a submission of a dispute to the deliberation of a joint session of Special Councils occurred only once, in the fall of 1916, when the Minister of War protested against the fixed grain prices for the 1916-1917 campaign. No agreement was reached, however, and the matter was settled by the Council of Ministers.

Locally, we now find the commissioners of the Chairman of the Special Council making their appearance side by side with, as well as over, the purchasing commissioners,<sup>8</sup> often combining both functions in one person. Their business was to bring unity into all supply measures within their own territory, which, as a general rule, corresponded to the basic administrative divisions of the empire, that is, either a province (*gubernya*) or a territory (*oblast*).<sup>9</sup> These commissioners took the place of the provincial food supply committees which had been organized, under the chairmanships of the provincial governors, as the local branches of the short-lived Principal Committee on Food Supply. Unlike those committees, the commissioners represented personal authority, organizing their own councils. The rights and duties of these commissioners were laid down in detail by the special rules approved by the Chairman of the Special Council on October 25, 1915.<sup>10</sup>

These commissioners were required to investigate the state of food supply within their own territory; to lay in reserve stocks of foodstuffs in the event of rising prices; to organize, if necessary, the distribution of the foodstuffs among the population; to attend to their systematic delivery, and discuss all problems bearing upon the alimentation of the inhabitants. For this purpose the Chairman of the Special Council delegated to his commissioners a considerable share of his own powers, with the understanding that the commissioners should report to him concerning necessary measures exceeding the powers granted them. Under the rules referred to above, the commissioners were required to organize their own councils, but were not obliged to carry out the decisions of these bodies. They were at liberty to act as they thought best, merely having to inform the

<sup>8</sup> At the outset of the campaign of 1916-1917, 17 out of 18 commissioners of the Chairman of the Special Council, who were presidents of provincial zemstvo boards, acted simultaneously as purchasing commissioners of the Ministry of Agriculture.

<sup>9</sup> By a decision of the Special Council adopted on September 7, 1916, yet another category of commissioners of the Chairman of the Special Council was created; by an ordinance order issued October 7, 1916, all the chiefs of government railways and executives of private railways were appointed commissioners of the Chairman of the Special Council, as far as supplying the needs of the employees, mechanics, and laborers of the railways was concerned.

<sup>10</sup> *Sobranie Uzakoneni*, art. 2356.

Chairman of the Special Council of disagreements with their own councils. The body of commissioners was composed as follows: in 4 provinces the commissioners were members of the State Duma; in 2, elective members of the State Council; in 19, presidents of provincial zemstvo boards; in 36, provincial governors; in cities forming separate *gradonachalstva*,<sup>11</sup> the city governors; and in Turkestan and the Amur Territory, their governors-general. In the Don Cossack Territory, the Assistant Commanding Officer was made commissioner, and in the Caucasus the post was assigned to the highest local official of the Ministry of Agriculture.

It should be pointed out here that, even though the commissioners of the Chairman of the Special Council were often appointed from the ranks of the commissioners of the Ministry of Agriculture, and even though these two offices would thus frequently be combined in one and the same person, the distinction was still preserved *in principle*. The holders of the former acted as the collectors of foodstuffs, for the army above all; the others had to deal with the provisioning of the inhabitants within their territory, that is to say, to act primarily as the distributors of food supplies. This, by the way, explains why there were far more representatives of the administration among the commissioners of the Chairman of the Special Council than there were among those of the Ministry of Agriculture.

### *The Special Council and the Military Authorities.*

The new supply organization, as a whole, found itself from the very start confronted by two serious problems of external relations, as it were. The first was the problem of extending its own sphere of influence to include all food supply measures throughout the empire. At first sight, it might seem that this problem had been definitely settled by the very purpose for which the Special Council was created, and by the succinct formulation of that purpose in the text of the decree. But this proved not to be so in practice. Very soon there came to the fore the problem of defining the mutual relationships between the Special Council and the High Command. For the higher military authorities, depending exclusively and directly upon the orders of the High Command, and working, not under the regular laws, but under special legislation known as the Statutes on the Field

<sup>11</sup> Cities constituting separate administrative units.



Administration of the Army, refused to pay attention to the Special Council and persisted in issuing orders of embargo and requisition on a large scale, extending to some of the most important supply regions. As a result, after a report on the situation submitted by M. Naumov, the successor of Krivoshein in the post of Minister of Agriculture, and approved by the Emperor on November 23, 1915, it was decreed that the embargo and requisition powers of the army authorities were to be confined to the areas of actual hostilities, while in the rear of these areas extraordinary measures were permissible only with the consent of the Chairman of the Special Council.

To maintain liaison with the army command, special representatives of the Chairman of the Special Council were detailed to the chiefs of the Army Supply Department and to Headquarters of the Supreme Commander-in-Chief.

By this decision, the tension of relations was greatly relieved. Apart from this, a long and stubborn fight had to be waged against independent purchasing operations by various units of the army, which upset orderly supply work and spoiled prices. Finally, by an order from the Chief of the Staff of the Supreme Commander-in-Chief, such parallel purchases were definitely prohibited, and supplies bought independently by separate army units at the front were to be refused conveyance by rail and requisitioned for general use by the commissioners of the Ministry of Agriculture.

#### *Coöperation of Organs of the Special Council with Other Supply Organizations.*

The second problem of external relations was how to establish the necessary coöperation with other supply organs, especially how to obtain coördinated measures in such closely related supply fields as those of food, fuel, and transport. The interdepartmental representation at the Special Councils proved inadequate, the attempts to hold joint sessions of the Special Councils, or to form joint committees, had shown that they were too unwieldy, and the unifying part to be played by the Chairman of the Special Council on National Defense was not in practice found effective. The result was that, on the initiative of the Minister of Agriculture and by order of the Council of Ministers dated December 19, 1915, there was created at the capital something like a minor Council of Ministers, called the

"Conference on the Supply of Foodstuffs and Fuel to Needy Localities," whose object it was to coördinate the entire work of the supply organizations.

This conference was composed of the Ministers of War, Agriculture, Foreign Affairs, and Commerce and Industry, and presided over by the Minister of Transport. The latter was given the chairmanship, not alone in recognition of the eminent fitness of General Trepov, at that time Minister of Transport, but also because it was clearly seen that the problems of supply had a direct and intimate relation to the problem of transportation. Corresponding organs of coördination were formed also locally throughout the country. On the recommendation of the Minister of Agriculture, the Council of Ministers on January 15, 1916, confirmed the statutes governing the establishment of conferences of commissioners of the Special Councils on National Defense, Food Supply, Fuel, and Transport.<sup>12</sup> These commissioners' conferences were to be presided over by the provincial governors. The commissioners retained their full authority, but mutually exchanged information and were required to coördinate their proceedings. Divergence of opinions did not interfere with the execution of a measure, but the matter was to be referred for review to the conference of Ministers mentioned above.

#### *Multiplication of Local Organs of the Special Council.*

The law, as well as the decisions of the Special Council and its Chairman, had in mind at first only *provincial* organs of food supply, composed of the commissioners and their councils. In practice, however, similar organs very soon appeared also in smaller territorial units, on the initiative of the commissioners themselves. Sometimes the commissioners would enlist the services of zemstvo and municipal boards, directly; at other times they would create special organs, which were also, as a general rule, in direct contact with the

<sup>12</sup> Under the ordinance of the Chairman of the Special Council dated June 7/8, 1916, his commissioners had the right to invite to their provincial interdepartmental conferences the local purchasing commissioners. It was emphasized, however, that "attendance at the meetings by the commissioners of the Ministry of Agriculture shall in no way impair any of the rights granted to them, which rights, assuring to the commissioners the necessary facilities for prompt and systematic action, are of the utmost importance in meeting the food requirements and interests of the army."

zemstvo and municipal boards. In provinces that had no zemstvos<sup>13</sup> it was found necessary to form, apart from the municipal boards, special organizations of the various public bodies and institutions which had to do with the foodstuffs market, such as exchange committees, war industries committees, coöperative societies, and similar organizations. At first, no instructions were forthcoming from the center, with the result that methods differed in various localities, according to local conditions and the personalities of the commissioners. But as a practically general rule, there was at this period a very extensive utilization of the municipal food supply organs, known by various names, besides the provincial councils and organizations formed under the authority of the provincial commissioners. In the rural districts the supply organizations were not quite so fully developed. Here, the lowest territorial unit of the supply organization was the district (*uezd*), and the district zemstvo constituted the organizing nucleus. This was due, not alone to the absence of a lower (*volost*)<sup>14</sup> zemstvo unit, but likewise to the fact that the food campaign was not yet sufficiently intensive at this time to call for the establishment of supply organs so close to the peasant farmers.

Created for the "consideration and unification" of food supply measures, the Special Council, as represented by its secretariat and local branches, rapidly became an independent, growing organization of supply. The general introduction of the "permit" system of transport, on the one hand,<sup>15</sup> and the establishment of absolute government control of the distribution of certain foodstuffs (sugar), on the other,<sup>16</sup> were either based upon the assumption of the actual existence, or led to the establishment, of a well-developed network of supply organs at the disposal of the Government.

In stressing these two factors and explaining their importance, the Chairman of the Special Council concluded his ordinance of April

<sup>13</sup> In many outlying regions, such as Archangel Province, Siberia, Turkestan, the Steppe Territory, in the Caucasus, etc., there were no zemstvos in existence. In Archangel Province, Siberia, and the Territories of Ak-molinsk, Semipalatinsk, Semirechie, Turgai, and Ural, zemstvos were established for the first time by the Act of June 17, 1917, of the Provisional Government.

<sup>14</sup> *Volost*, the lowest administrative unit in Russia, was concerned with the peasantry, as distinct from other classes of the population.

<sup>15</sup> Cf. Chapters X and XI.

<sup>16</sup> Cf. Chapter X.



4, 1916, addressed to the commissioners of the Ministry of Agriculture, as follows:

Many commissioners on the spot have already formed special organs which help them carry out their numerous duties, while others avail themselves of the assistance of municipal and zemstvo institutions. . . . I attribute a paramount importance to the problem of a proper organization of local forces. . . . It is for you to decide whether you shall use the zemstvo and municipal institutions as your auxiliary organs, or to form, in accordance with Art. 12 of the Statutes of the Special Council, special local councils under the chairmanship of your deputies, to be brought together under the jurisdiction of a provincial council under your own chairmanship.<sup>17</sup>

*Constitution of the Central and Local Organs of the Special Council,  
under Decision of the Minister of Agriculture of  
October 10, 1916.*

As a result of the rapid growth of the various organs of the Special Council, an attempt was made to systematize their work by an order issued October 10, 1916, by Count A. A. Bobrinsky, who has succeeded Naumov as Minister of Agriculture.

This order takes the view that the function of the Minister of Agriculture, in his capacity of Chairman of the Special Council, must not be confined to the "unification and discussion" of supply measures, but rather that it should be his function to give a general direction to the whole business of collecting and distributing food-stuffs among the civilian population and the army. While the original plan provided that the Ministry of Agriculture, through the

<sup>17</sup> It should be noted here that at the commissioners' convention of August, 1916, the secretariat of the Special Council introduced the question of regulating the functions of the local organs in a very moderate form. It was proposed that there should be no general rules and regulations issued, but that the individual recommendations of the local commissioners regarding the proper organization of the food supply in their territories should be submitted to the Chairman of the Special Council, for his approval, after consideration of the proposals by the provincial council. Appointments of district and city council chairmen were to be made by the Chairman of the Special Council on recommendations by commissioners, and in the lower territorial units the council chairmen were to be appointed by the commissioners, by agreement with the provincial governors. But this proposal was rejected by the overwhelming majority of the commissioners, who were anxious to retain freedom of action in organization work.

medium of its High Commissioners, was to purchase the food supplies for the army, its sphere now extends to general provisioning, for any purpose the Government may have in view, and is by no means confined to the army alone. In this sense all purchasing operations were now apportioned between the two previously mentioned High Commissioners, viz.: (1) the High Commissioner for Grain Purchases, who, in January, 1917, was renamed the "Special Commissioner for Army Purchases of Grain, Sugar, and Salt," a term which differentiated him outwardly from his colleague and was indicative of his actual functions, and (2) the High Commissioner for Meat and Vegetable (and other) Purchases. Both were placed under the general supervision of the Deputy Chairman of the Special Council, who, until January, 1917, was also the High Commissioner for Grain Purchases (this was M. Neverov, who succeeded M. Glinka).

The direct management of the various supply operations was entrusted to a large number of assistants to the High Commissioners, or to persons who were granted the powers of such assistants, and who acted at the same time practically as permanent members of the special committees formed to consider measures in their respective branches of supply.

The object of the network of committees was, on the one hand, to provide (or to preserve already existing) special organs for carrying on the work of the Special Council, and on the other, to set up committees of government representatives and interested unofficial organizations alongside the responsible directors of the various branches of supply work. But we must emphasize again the fact that this did not in the least alter the personal nature of final decisions, in its formal aspect, for the fulness of power and responsibility continued to be vested in the Minister of Agriculture and his appointed agents.

The same order, of October 10, 1916, reveals an attempt to systematize and develop further the local supply organs. It prescribes precisely the composition of the provincial councils.<sup>18</sup> These were to consist of the purchasing commissioners of the Ministry of Agriculture, the higher officials of the executive office of the commissioner of the Chairman of the Special Council on Food Supply, repre-

<sup>18</sup> Until this date, the membership of the councils was specified only for price-fixing purposes, in accordance with the decision of the Minister of Agriculture issued February 12, 1916. Cf. Chapter II.

sentatives of various government departments, representatives of the provincial and district zemstvos and municipalities, representatives of the general public chosen by the provincial zemstvo assembly and by the municipal council of the chief town of the province, representatives of the commercial, industrial, and coöperative organizations, and, lastly—with a consultative voice only—certain persons invited by the commissioner. This was something like a small local parliament.

A similar organ was set up also at the district headquarters, under the district agent of the commissioner. In the *volosts*<sup>19</sup> or other areas smaller than a district, there were established *volost* committees, presided over by appointees of the commissioner. These committees acted, as it were, in place of the lacking *volost* zemstvos, and they were composed of the following elements: three landowners elected by the district zemstvo assembly; the *volost* elder; three representatives of the peasants elected by the *volost* meeting; representatives of local coöperative organizations, one for each type of organization; officials of the local peasant administration; a justice of the peace; a representative of the revenue inspection service; a member of the district zemstvo board; zemstvo physicians, veterinary surgeons, insurance agents, government and zemstvo agronomists; and representatives of the local clergy and business interests.

In a formal sense, the status of the councils was somewhat altered. Previously, there had been the personal authority of the provincial commissioners, who had been vested with definite powers and under whose jurisdiction advisory bodies had been set up. Now, however, we have a hierarchy of councils under the chairmanship of the commissioner and his local agents, and the powers and duties formerly pertaining to the commissioner devolved upon the councils. Still, even now the collegiate principle is not carried so far as to impose a formal and definite check upon the decisions of the commissioner or his representatives. Decisions of local supply institutions are held to be adopted if there is a majority vote in their favor and if approved by the chairman. Should the latter disagree, the matter is to be settled by the provincial commissioner. The latter, in case of disagreement with the decision of the council presided over by himself, may act as he sees fit, except that he must report the matter to the Chairman of the Special Council. The competence of all local supply

<sup>19</sup> See p. 18, n. 14.



councils is greatly extended and prescribed in greater detail, as compared with the previous regulations for local commissioners. On the whole, there is now created—at least on paper<sup>20</sup>—a solid network of hierarchically graded and interlocking food supply organs comprising in every instance a responsible agent of the Government and a collegiate body consisting of public men, government officials, and experts; the latter always participates in the work of the corresponding governmental agent and exercises over him a general supervision.

*The March Revolution and the Organization  
of the Food Supply.*

This was the condition in which the food supply organization was found by the March Revolution. The Revolution brought about a radical change in the basis as well as in the structure of the organization. After a short transition period, during which the organization continued to function by sheer inertia, without a leader and taking casual orders from a committee formed of representatives of the Soviet of Workmen's and Soldiers' Deputies and the Provisional Committee of the State Duma, it was given a new head in the person of M. Shingarev, Minister of Agriculture in the Provisional Government. On March 9, 1917, there was created, to take the place of the

<sup>20</sup> The lower local supply organizations remained, to a considerable extent, mere paper schemes, as their actual establishment was deferred. In this connection we must point out, however, that this was due not exclusively to political considerations, that is, to the fear that such popular supply organizations might serve as rallying points for the political strife that had already started; there were also motives of technical expediency. We can state confidently that the action of M. Rittikh, who succeeded Count Bobrinsky as Minister of Agriculture, in assigning the work of the grain levy (see chapter on grain monopoly) to the *volost* elders instead of the *volost* public organizations which were still waiting to be created, was dictated chiefly by Rittikh's conviction that these men, accustomed as they were to practical executive work, would prove more useful as prompt executors of the new plan. It is interesting to note in this connection the fact that toward the end of the existence of the Provisional Government the Ministry of Food Supply seriously considered the advisability of limiting the functions of the *volost* organizations in the matter of food supply. The *volost* organizations might have been very useful in the distribution, but by no means in the collection of foodstuffs. Thus the editors of the *Izvestia po Prodovolstvennomu Delu* (*Food Supply News*) declared, in the issue of August 20, 1917, most emphatically that "the *volost* committees have not been successful."

Special Council, the State Food Committee.<sup>21</sup> On March 25, new local organs of food supply were formed.<sup>22</sup> These were intended as temporary institutions, pending the reorganization of local government on democratic principles, after which the entire business of food supply was to be turned over to the zemstvos and municipalities. On May 5, a separate Ministry of Food Supply was established, but up to the month of June the administration of the supply work remained in the charge of Shingarev, in order to permit the inauguration of the government grain monopoly. After that, M. Shingarev was appointed Minister of Finance, and M. Peshekhonov was made Minister of Food Supply. On July 1, the statutes of the Ministry of Food Supply were approved. The principal features of the food supply organization of the Provisional Government, as established by the orders and decisions here referred to, were the following.

#### *The State Food Committee.*

The highest organ of food supply was the State Food Committee, presided over at first by the Minister of Agriculture and afterward by the Minister of Food Supply. Its function was to "draft a nation-wide plan of food supply, to elaborate guiding principles, and to take general measures for the supply of food." Unlike the Special Council of the earlier period, this is not merely an advisory body, for the Minister now acts "in agreement" with the Committee and carries out its decisions through the issue of orders in conformity therewith. The composition of this Committee was as follows: four commissioners of the Provisional Committee of the State Duma; seven representatives of the Soviet of Workmen's and Soldiers' Deputies; seven representatives of the All-Russian Peasant Union; four representatives of the All-Russian Union of Zemstvos; four representatives of the All-Russian Union of Towns; six representatives of the coöperative organizations (producers', consumers', and credit co-

<sup>21</sup> Its statutes were amended by decree of the Provisional Government dated April 3, 1917.

<sup>22</sup> The proposal that the provincial zemstvo and municipal boards should immediately undertake the formation of new organs of food supply, to be known as provincial food supply committees, on very democratic principles, had been made already on March 2 by a subcommittee of the Provisional Committee of the Duma and of the Soviet, and this was confirmed by the Minister of Agriculture on March 7.

operative societies); three from the Central War Industries Committee; three from the Council of the Trade and Industry Congress; one from the Council of All-Russian Coöperatives Congress; two from the Chamber of Agriculture; and one representative of the Executive Committee of the Statisticians' Congress. As for the representatives of government departments, especially those of the food supply department, they were given only a consultative voice in the State Food Committee.

### *The Ministry of Food Supply.*

The Ministry of Food Supply, subject directly to this Committee and functioning as the "supreme organ for the execution of government measures for the food supply and for the supply of the population with articles of prime necessity," was in effect a huge bureaucratic machine. At its head stood the Minister, aided by three associate ministers, and these, in turn, had three assistants. The Ministry was divided into three large departments with numerous subdivisions.

Some idea of the vastness of the organization that grew out of the modest secretariat of the Special Council may be gathered from the fact that the Ministry of Food Supply was barely able to find space in the whole of the large Anichkov Palace, a former Imperial residence.

It is important to note that, in the formulation of the powers of the State Food Committee and of the Ministry, the purpose of supplying the needs of the army seemed entirely lost in the larger object of supplying the needs of the country at large. Henceforth, the supply of the army is to be merely a part of the national problem of supply as a whole, and the latter becomes an end in itself. In the statutes of the Ministry of Food Supply, which cover nearly an entire printer's sheet, we find but two or three casual references to the needs of the army, and even so they occur only as an element in the general plan of national supply. Another important feature is the recognition of the principle that the Ministry shall attend to the supply not only of foodstuffs but also of articles of prime necessity in general. Previously, this principle had sometimes been recognized in theory, being regarded as a concomitant of fixed prices for food producers; but now, in the formal statement of the functions of the Ministry, the principle is for the first time given a concrete and in-



dependent character. Lastly, an independent character is now also given to agricultural organization: a special division of the Department of Supply of Articles of Prime Necessity of the Ministry is to furnish the farmers with metals and agricultural implements and tools, and a special section is formed to look after the proper organization and management of the cultivated area and harvest. In short, we find that the size of the new organization corresponds to the immensity of its task.<sup>23</sup>

*Local Organs of the Ministry of Food Supply.*

We now turn to a consideration of the local organs of the Ministry of Food Supply. From the very outset, this Ministry had a veritable army of agents, resident as well as traveling, for two chief purposes: (1) to maintain regular contact with related organizations (especially the fuel and transport organizations) and for purposes of representation; (2) to manage the collection, storage, conversion, and delivery of articles of prime necessity, in other words, to execute all those economic functions and operations which the Department was conducting on such an immense scale. Besides these agents, whose function was defined by the law as "the execution of the instructions of the Ministry of Food Supply," that is to say, of a more or less casual and episodic character, a regular hierarchy of perma-

<sup>23</sup> This task, again, was only a part of that still larger task which confronted the Government as a result of the driving forces behind the Revolution. Thus a resolution of the Soviet of Workmen's and Soldiers' Deputies passed on April 3, 1917, and presented to the Provisional Government by M. Grohman, reads: "To avert an imminent catastrophe, the Provisional Government must solve two urgent problems, (1) the systematic regulation of the entire economic life of the country and the organization of all production, exchange, traffic, and consumption so as to be directly controlled by the State, and (2) the appropriation of all excessive profits for the benefit of the nation, and restriction of every form of capitalistic income to definite norms. As regards the working class, it must be assured of decent conditions of living and of labor, which will enable it to display a maximum of strenuous and intensive work for the salvation of the country." (Cf. *Izvestia po Prodovolstvennomu Delu*, No. 1/32, p. 3.)

On June 21, 1917, the Provisional Government created an Economic Council "to elaborate a general plan for the organization of national economy and labor." At the same time the Government formed a Central Economic Committee, for the coördination of all measures for the regulation of the economic life of the country.

nent local organs was established. This system was introduced by the decree of the Provisional Government issued on March 25, 1917, on the government grain monopoly. It was adopted by the Ministry of Food Supply as a temporary measure until the final organization of democratic zemstvos and municipalities should be accomplished, after which the latter were to take over all the functions of the local supply organs.

The management of the food supply administration and of the organization of agricultural production was entrusted, for the provinces, to the provincial committees; for the districts, to the district committees; for the provincial capitals, to the city committees; for the *volosts*, to the *volost* committees on food supply. With the approval of the provincial food supply committees, intermediary committees might be set up, on the pattern of the district and *volost* committees. The composition of all these committees was uniform throughout: the representatives of the government institutions had only a consultative voice, so that the Government could only advise, being without a single representative of its own among the members of these committees, because the committee chairmen as well as their deputies were chosen by the committees themselves, the provincial committee chairmen and their deputies becoming, *ex officio*, provincial commissioners and deputy commissioners, respectively, of the Minister of Food Supply, in his capacity of Chairman of the State Food Committee. These committees included representatives of local government (in the *volosts* where no local government had as yet been established, representatives of private landed proprietors were chosen by the district zemstvo boards or assemblies), of peasant organizations (from the Peasant Union for province and district, and from the *volost* meeting for the *volost*), of labor (from the Soviets of Workmen's Deputies, or trade unions and sick-benefit funds), of the coöperative societies of zemstvo and city employees (mainly in the statistical and medical fields), and, lastly, of trade and industry. In the chief towns and provinces and districts there were, moreover, the representatives of agricultural societies, while in the former we find the representatives of the war industries committees and of the All-Russian Unions of Zemstvos and of Towns.

Upon these committees are now conferred, with further extensions, the powers that had previously been vested in the commissioners. To carry into effect the decisions of the committees, appro-

priate food supply administrations, or boards, are formed, composed of a chairman, his deputies, and two to six members chosen by the respective committee. In the provincial committees, the chairmen and deputy chairmen automatically become chairmen of such boards. Appeals against the decisions of these boards are addressed to their respective committees. The fulness of power within the jurisdiction of the province is concentrated in the provincial committee, whose board has the right to alter or overrule the decisions of the district, city, and *volost* committees. Committee decisions are taken by majority vote, and the chairman may hold up the decisions and submit them to higher authority for consideration, but only on the ground that they are illegal or do not conform with the orders of the Minister and associate ministers, or of the provincial committee. Similarly, decisions of the provincial committee that are either illegal or not in conformity with the orders of the Ministry, may be held in abeyance by the chairman and submitted to the Minister for final decision. Appeals against decisions of provincial committees are to be addressed to the Minister, in his capacity of Chairman of the State Food Committee, and he may either overrule or amend the decisions of such provincial committees.<sup>24</sup>

*General Characteristics of the Food Supply Organization  
of the Provisional Government.*

It will thus be seen that the basic principles of the central and, still more, of the local organizations differ sharply from those of the pre-revolutionary period. In the earlier period there was a regular network of government agents headed by provincial commissioners invested with full powers and bearing all responsibility; this organization of agents and commissioners took the form of a pyramid of local organs in which individual authority was coördinated with the work of a local institution that coöperated with and supervised,

<sup>24</sup> The actual structure of the local organs was not always in perfect accord with the provisions of the law outlined above. Here and there, regional food supply committees were set up, above the provincial committees. Similarly, village committees would sometimes be formed below the *volost* committees. Also, the membership of these committees turned out to be far larger than provided for by the law, because local organizations adopted the principle—subsequently sanctioned by headquarters—of representation of the lower in the higher committees. Lastly, it should be borne in mind that committees would often be formed more or less arbitrarily, contrary to law.



but did not overrule or interfere with the work of the former; and, while it was one of the duties of this organization to help to solve the problem of supplying the entire nation, it viewed this, at first, as something which, although unavoidable economically, appeared only secondary and supplementary to the principal task—the supply of the army. The latter duty was dealt with by a staff of purchasing and supply commissioners recruited for this very purpose at the outset. Such was the system at first. After the Revolution, however, we observe in its place a general organization, whose function it is to supply the entire nation, the army being considered only a part of this broader scheme. Furthermore, these new organs consistently observe the principle of combining under their control both collection and distribution of supplies, to the detriment of intensive collection, and the principle of collegiate constitution, to the detriment of strong personal authority.<sup>25</sup> These collegiate organs are now formed on the principle of the liberal representation of public interests, organized to a considerable extent by revolutionary procedure (the Peasant Unions, the Soviets of Workmen's Deputies), and the complete removal of the representatives of the Government, old as well as new (that is, the government commissaries who took the place of the Tsarist provincial governors), from all participation in the settlement of affairs. Nominally, to be sure, the leadership still rests with the Ministry, but the means of realizing this leadership in practice are now so much reduced as to render this shadowy, nominal authority entirely ineffective.<sup>26</sup>

<sup>25</sup> The concentration of all supply work, collection as well as distribution, in a single organ constituted on the principle of a wide representation of the local public, that is, of the consuming elements, was inevitably destined to have a marked effect upon the further course of the work of supply. It was natural, under these circumstances, that the question should again arise of a separation of the functions of collection and distribution, and of vesting the authority, in the matter of supply, in a single person. At the Ministry of Food Supply they considered once more the plan of appointing provincial supply commissioners.

<sup>26</sup> To establish contact between the center and the rest of the country, and to speed up the reconstruction of the whole machinery of food supply, there was established on April 29, 1917, the institution of the so-called commissaries, who were granted vast powers. After the period of reorganization was passed, the task of maintaining contact with the rest of the country became still more urgent. On June 7, an instruction was issued for the guidance of the instructors working under the Ministry of Food Supply. According to Article

Generally speaking, this was no longer an organization for the supply of the army, imbued with the spirit of military persistence and promptitude, and conscious of the temporary nature of its work, which, in view of the fundamental unity of the national economy, could not help being intimately connected with the work of supplying the nation in general. Instead, we are now dealing with a nationwide supply organization bearing all the marks of permanence and looked upon as an end in itself, rather than merely as an instrument and indispensable condition of the supply of the army.

## II. SPECIAL ORGANS

### *Centrosakhar (Sugar Center).*

We have surveyed in the preceding pages the general organization of the food supply machinery, in its successive stages of development. We still have to examine certain special organs dealing with particular branches of food supply, as elements in the general system.

First among these special organs created for the purpose of regulating the supply of some particular product was the Central Bureau for the Concentration of Sugar Purchases, which was established in accordance with the decision of the Minister of Agriculture of January 20, 1916. A detailed account of the organization of the nation's sugar supply during the War will be given elsewhere in the present work.<sup>27</sup> This will be found highly instructive, since it was in respect of sugar supply that was first demonstrated that irresistible inner logic of the war-time economic organization which

I of this document, "with the aid of its instructors, the Ministry of Food Supply intends to establish closer and livelier contact with the local food supply organs." In the autumn of 1917, again, there was established the organization of special commissioners, who, in order to secure more intensive supply work, combined groups of the producing provinces in larger units. None of these measures, however, proved effective, and we cannot help admitting the justice and pertinence of the following remarks characterizing the whole period under discussion. We quote them from an editorial article which appeared in the *Izvestia po Prodovolstvennomu Delu* of August 20, 1917, No. 2/33, p. 2: "We have to admit the indubitable weakness, on the whole, of the local food supply organs, motley in composition, not infrequently following arbitrary local supply policies, and often simply non-existent as agents of the central authority."

<sup>27</sup> Cf. Chapter X.

was destined to lead on from private enterprise to government monopoly. For the moment we confine ourselves to stating that this Central Bureau (to be referred to hereafter indifferently either as the Bureau or *Centrosakhar*) was set up in the city of Kiev, the center of the sugar industry, and that it was at first the agency through which sugar producers and commissioners had to negotiate purchases. Gradually, however, it developed into the central sugar distributing agency of the empire.

The composition of the Bureau was as follows: At its head stood a chairman and his deputy, both being appointed by the Chairman of the Special Council. The members included the commissioners of the Chairman of the Special Council or their representatives in the sugar-producing areas, the representatives of various government departments, and representatives of the sugar producers—the Refiners' Bureau and the Sugar Manufacturers' Association. In conformity with the general principles of the supply organization previous to the Revolution, the chairman's personal authority was not restricted by decisions of the collegiate body over which he presided: in case of disagreement with decisions of the Bureau, he was at liberty to act on his own responsibility, as long as he sent a report on the case to the Chairman of the Special Council. In the *Centrosakhar* we find for the first time a central organ subordinated directly to the Special Council, even though located in a distant city, and specially created for the purpose of dealing with the supply of a particular commodity. In structure, this was a governmental institution, with the organizations of the sugar producers coöperating.

Having become in course of time the national distributing center for sugar, the Bureau was bound, of course, to concentrate under its own control all information on the work and productivity of the sugar industry, and to become at the same time the distributor of orders and the common cashier. But the headquarters alone proved inadequate to cope with the work. There was need of a larger, technically experienced organization of local agents near the refineries. The Bureau was fortunate in being able to utilize the services of the well-trained and efficient officials of the Department of Special Revenues who were already engaged in the work of sugar revenues. Only in this way was it possible for the *Centrosakhar* to grapple with the enormous task which confronted it. But we must not underestimate the work performed by the headquarters of the



Bureau itself. The director of the Bureau during its most difficult period of organization was M. Chernysh, an agronomist by profession.<sup>28</sup>

In keeping account of production and supervising the execution of orders, as in all its proceedings, *Centrosakhar* depended almost exclusively upon the aid of the revenue officials. In its other work, however, it had to rely largely, and sometimes altogether, upon its own resources and means. This holds true especially of the transport of sugar, and in the matter of assisting the refineries to obtain various articles needed in the process of production. In this part of its activities, the Bureau maintained specially close contact with the bodies representing the sugar producers. The latter, thanks to their excellent information and close-knit organization, were to prove generally most helpful to the Bureau. It is interesting to note, however, that the idea of forming a syndicate of sugar refiners, which, under the supervision of the Government, might have carried out the functions of *Centrosakhar*, met with but little favor in the ranks of the producers. Unofficial conferences held for this purpose at Petrograd proved unavailing, even though the Government itself regarded the idea with favor, at least in principle. The work of sugar supply thus remained in the hands of a government department which merely had the coöperation and support of the interested producers' associations. *Centrosakhar* remained in existence also after the Revolution, but, of course, it underwent some radical changes in its composition and, as a matter of fact, it made itself almost independent of the governmental center. On the eve of the Bolshevik Revolution it was absorbed by the Ministry of Finance, in accordance with the decree of the Provisional Government of September 14, 1917, establishing a government sugar monopoly.

#### *The Central Flour Bureau.*

When the problem of regulating the production of flour came up for consideration, there was established, by analogy with the *Centrosakhar*, a Central Flour Bureau. The fundamental object of this Bureau was to provide an organization that would assure the mills of sufficient grain supplies at fixed prices and would deliver all flour

<sup>28</sup> Its first chairman was M. Sukovkin, chairman of the Kiev provincial zemstvo board.

to the market, likewise at fixed prices. A group of flour millers from the Volga region volunteered to undertake the proper organization of grain purchases, pledging themselves to adopt fixed prices in all their transactions. But the Special Council thought it injudicious to rest content merely with a general proclamation of fixed prices, in the absence of concerted measures that could effectively assure the maintenance of such prices. While not rejecting the participation of the millers in grain purchases for the Government on a commission basis, the Special Council found it advisable to create a special governmental organ, in which the millers would participate, the function of which would be to concentrate in its hands all measures for the regulation of the flour trade, in view of the decision to extend fixed prices to all transactions in flour. There was accordingly formed at Petrograd, by order of the Minister of Agriculture of June 30, 1916, a Central Flour Bureau, under the jurisdiction of the Special Council and presided over by the deputy chairman of this Council.

The membership of the Bureau included: three representatives of the Special Council chosen from its own ranks; the deputy chairman of the Bureau, appointed by the Chairman of the Special Council;<sup>29</sup> regional flour commissioners or their deputies; representatives of the government departments interested; of the central food supply organizations of the Ministry of Agriculture; of the All-Russian Unions of Zemstvos and of Towns; of the chief commercial, industrial, and agricultural associations; of the Moscow Union of Consumers' Societies; of the Council of the Flour Millers' Congress; and two representatives of the flour business in general. The functions of the Bureau were: (1) the apportionment of flour supplies, under orders from the Government, among the several territories, for the needs of the army and, if necessary, for the civilian population as well; (2) the elaboration of methods of collecting information regarding both the actual condition of the flour industry and, in particular, of the stocks of grain, fuel, and sacks, and the development of production and demand in respect of these commodities; (3) the preliminary examination of projects for the control of flour prices; (4) the solution of the general problems of assistance to the millers in the collection and delivery of grain and in the supply of fuel, sacks, etc., to the mills; (5) the elaboration of a plan of transport for

<sup>29</sup> To this post was appointed M. Salazkin, a member of the State Duma and Chairman of the exchange committee of the Nizhni-Novgorod Fair.

grain, flour, and fuel; (6) the preparation of a scheme for rationing the several regions and localities; (7) the drafting of a project of compulsory production of standardized grades of flour.

The importance and the work of the Central Flour Bureau will be further dealt with elsewhere in the present volume,<sup>30</sup> when we describe the development of the grain and flour organization in its entirety. Here, we merely note the fact that this Bureau, unlike the Sugar Center, failed to make itself the main pivot of all subsequent measures for the regulation of flour production, and that it was mostly confined to an advisory part alongside of the Flour Committee established by the order of October 10, 1916.

This was due to the exceptional importance of the work of the Central Flour Committee which, together with the collection of grain, proved a fundamental element in the food supply of the army and nation; it was due, also, to the proximity of the Bureau to the active organs of the central food supply administration, which undertook the actual execution of all plans proposed by the Bureau and thus prevented the latter from building up an executive machinery of its own. Among other things, the institution of regional flour commissioners failed to take root, and the Central Flour Bureau itself was unable to keep pace with the rapid expansion of the work, being overwhelmed and completely lost in it. Upon the establishment of the Ministry of Food Supply, the Bureau was finally abolished.

As regards the local flour organs, they did not receive a unified organization until after the outbreak of the Revolution. Nevertheless, flour bureaus were already beginning to be formed in various parts of the country prior to the Revolution, on the initiative of the local commissioners. The latter were anxious in this way to obtain the support of the organized local industries for their own activities in this particular field, which they found very complicated and difficult to manage unaided.

With the formation of general local food supply organs under the Provisional Government, and with the introduction of the government grain monopoly, these special institutions were naturally deprived of all incentive to further expansion, and they were soon lost amidst the general organization of the food supply committees.

<sup>30</sup> Cf. Chapter IV.



*The Salt Committees.*

Radically different were the arrangements for the supply of salt.<sup>31</sup> By order of the Ministry of Agriculture of April 2, 1916, separate salt committees were created in the principal salt-producing regions, to be presided over by the local commissioners of the Special Council. Such committees were: the Donets Committee (in Kharkov), the Crimean (Simferopol), the Astrakhan (Astrakhan), the Permian (Perm). The personnel of the committees included the deputy chairman, appointed by the Chairman of the Special Council, and one representative of the general administration, one of the mining inspection service, two of the Ministry of Transport (one for railway transport, another for water transport, in those regions where salt was shipped by water), and one of the local exchange committee; it also comprised representatives of the salt industry, their number to be determined by the committees, but having collectively not more than a single vote. In the Donets Committee there were, moreover, the representatives of the Council of the South Russian Mine Owners Congresses, as well as of the Kharkov Committee on transport of mineral fuel, ores, fluorites, salt, and pig iron from the mining regions of South Russia. The Astrakhan Committee included also a representative of the fishing interests.

The chairman was empowered to take any measure within the competence of the committee without preliminary discussion by the latter, being merely required to report his action at the next meeting of the committee. The order of April 2, 1916, however, did not authorize the chairman to act as he saw fit in case of disagreement with the committee or even against the decisions of the latter. Hence, in such cases, the chairman could only appeal to the Chairman of the Special Council.

A similar committee was formed on September 16, 1916, at Orenburg, to deal with the salt of the Iletsht region (Orenburg Salt Committee). After the Revolution, when the control was extended to the salt of Semirechie and Odessa, no salt committees were established at these places, and the purchase and distribution of this salt was entrusted instead to special commissioners, by order of the Minister of Agriculture of March 8, 1917. On April 25 of the same year the salt committees were abolished and their places taken by Salt

<sup>31</sup> Cf. Chapter XI.

Commissions acting under the provincial food supply committees and presided over by the chairmen of these committees. The deputy chairman was chosen by the committee. The committee also determined the composition of the commission, reporting its proposal to the Minister of Agriculture, who could make whatever changes he thought needful in the membership. The only restriction imposed from the outset upon the local committees by the central authority was that they must not permit the representatives of the salt industry to exceed one-third of the total membership of the commission. All rights and duties of the former salt committees devolved hereafter upon the salt commissions. The aims and achievements of the salt committees will be discussed in greater detail when we come to describe the further progress of the salt supply organization.

*All-Russian Potato-Syrup Manufacturers' Association.*

Standing in a class by itself was the last foodstuffs organization to be formed prior to the Bolshevik Revolution. This was the starch and molasses association.<sup>32</sup> It was formed in accordance with the decree of the Provisional Government promulgated on September 14, 1917. The gist of this interesting decree is as follows.

The manufacture of pure potato starch, dextrine, sago, potato-flour (dry starch), and starch sugar (glucose and molasses) is carried out according to the plans and under the control of the Ministry of Food Supply. The regulation of the manufacture of these articles, the supervision of this manufacture, the distribution of starch among the several undertakings for further conversion, and the distribution of the finished product according to the plans and directions of the Ministry of Food Supply, are all to be dealt with by the All-Russian Potato-Syrup Manufacturers' Association. The Government enters into contractual relations exclusively with this Association, and not with individual manufacturers. To supervise the activities of the Association, the Minister of Food Supply appoints an inspector from among persons who do not belong to the Association. This inspector is required to attend all the general meetings of the Association and the meetings of its administrative board. He may also attend the meetings of the control committee and all other organs of the Association, and he may insist that it produce all its books

<sup>32</sup> Cf. Chapter X.

and documents for his inspection, if necessary. The decisions of all organs of the Association, as well as the minutes of their proceedings, must be communicated as soon as possible to the inspector, who may within a period of three days thereafter suspend the execution of any decision of the organs of the Association and report it to the Minister of Food Supply, who has the final decision in such matters. The Association keeps an account of all undertakings engaged in the conversion of the above-mentioned commodities, and it exercises control over production. Products may be removed from these establishments only by order of the Association.

The Association receives the entire output at fixed cost prices and distributes it at a sale price fixed by the Ministry of Food Supply. The Association also concentrates information regarding the stocks in hand, current and intended production, cost of production, and other such data. The statutes of the Association are to be confirmed by the Minister of Food Supply. Every manufacturer of the commodities in question is not obliged to become a member of the Association, but non-members are bound, equally with members, to submit to the Association, as provided by the decree. They pay to the Association, for its operations as an intermediary in releasing and distributing their output, a certain commission, as determined by the general meeting of the Association. As regards the financial responsibility for failure to meet obligations assumed by the Association with respect to the Government and third parties, the Association answers only for its own members.

This decree is of interest as representing the only attempt ever made in connection with Russian food supply during the War to entrust the regulation of the supply to organized industry itself, under the supervision and direction of organs of the Government.



## CHAPTER II

### PRICE POLICY

#### *First Measures of Price Control.*

PRE-WAR legislation had made no provision for the Government's intervention in the fixing of prices. The sole exception had been the right of municipal councils to prescribe bread and meat prices, but this right was used by the municipalities only on very rare occasions. With the outbreak of the War, it was feared that the difficult moment might be taken advantage of by speculators to increase prices unwarrantably, and the Ministry of the Interior addressed, as early as July 31, 1914, an ordinance to the provincial governors proposing that they should issue in the usual manner compulsory orders regulating the prices of articles of prime necessity, and that they should bring to bear all their legitimate authority against profiteering, such as often develops in connection with public calamities.

Having no specific powers, under existing laws, to cope with such a situation, the governors had to seek justification for their acts in the extensive powers conferred on them in a state of emergency. This explains, on the one hand, the flimsiness of the legal basis of the price-regulating activities of the local authorities, and, on the other, the extreme lack of uniformity in these activities. The method of elaborating and inaugurating the regulations, the areas and articles to be subjected to them, and the manner of determining the rates were seen to be entirely uncoördinated. In some cases, the rates would be fixed by municipal and zemstvo institutions, and confirmed by the provincial governors; in others, they would be prescribed by the governors themselves, without any apparent participation by the local public organizations; and still in other cases, they would be issued by municipal or zemstvo institutions, or by mixed commissions that were entirely unknown to the law, showing no trace of any authoritative sanction; lastly, in some instances, the rates would be determined by special commissions, likewise unknown to the law, and confirmed by the governors.

As regards their areas of operation, regulated prices sometimes applied only to cities, at other times to entire districts. With regard to articles, these prices sometimes covered only articles of prime necessity, such as bread and meat, or bread alone, at other times they applied to an enormous list of commodities, including even paper, ink, and newspapers. In some places only the retail prices were regulated, in others, both retail and wholesale. In the manner of their elaboration, the regulated prices were sometimes intended to be based merely upon the probable cost of the commodity to the dealer; at other times they made an attempt to ascertain the correlation between demand and supply in the given market and take it into account.

Respecting penalties for non-observance we have to remember that all measures for the regulation of prices derived their sanction from the existing state of emergency, so that, in accordance with the ordinary procedure, violation of price regulations would entail the corresponding administrative punishments, that is, confinement in a prison or a fortress, or in a house of detention, for a period of three months, or a fine up to 3,000 rubles, by order of the highest local administrative authority. In some cases local intervention in the regulation of prices assumed entirely abnormal forms. Thus the governor of Ekaterinoslav issued on July 25, 1914, an order prohibiting artificial increases of price by dealers in flour, grain, meat, and other articles of prime necessity. On May 9, 1915, again, he distributed, for the guidance of the officials concerned in enforcing the previous order, a list of prices marked "strictly confidential," fearing that publication of this list might result in a removal of these articles from the confines of his province. In this way the traders were made subject to punishment for exceeding prices which they did not even know. Or, again, another case: The governor of Penza on October 17, 1915, prohibited all the retail stores of the city of Penza from making profits above the percentage fixed by the general session of the local treasury board for 1915. To this order was attached a list of goods similar to the famous Table of Diocletian; it specified the rates of profit on eighty-eight articles, starting at a low rate and ending quite high (from 2 per cent for cement and 1 per cent for matches to 30 per cent for ladies' stylish hats and 20 per cent for corsets).

*Failure of These Measures.*

However, the failure, now clearly apparent, of all administrative measures was not at all due to such abnormal and incidental actions. The trouble was that the very principles of all these measures were wrong. Practical experience had shown that price regulations imposed by administrative process by the local authorities result in one or other of these two phenomena: (1) the regulations are complied with by the dealers, and then the articles affected either disappear from that market or, at all events, are no longer sent thither, in which case the regulated prices will have to be either abolished or raised; (2) the regulations remain on paper only, being, as a general rule, evaded or unenforced, and then the articles are sold, not only in defiance of the regulated prices, but often even at prices still higher than might have been charged had there been no price regulation at all, as the price must now, of course, include insurance against new risks. It thus becomes impossible to procure goods if the regulation is effective, or, if possible, then only in contravention of the regulation. The practice of the various local administrative measures in the domain of price regulation, often carried out with a great deal of conscientious effort, had demonstrated beyond all doubt that it is impossible to accomplish anything in the economic field by mere administrative orders—especially local and uncoordinated orders—no matter what the penalties for violation, if the Government does not at the same time obtain actual control of the machinery of supply and confines itself to the issue of ordinances and the threat of punishment for their violation, and this, too, only at the very last stage in the economic cycle, that is, at the moment when the commodity is transferred from retailer to consumer.

*Report of the Secretariat of the Special Council.*

The fiasco of price regulation brought the Government face to face with the problem of supply in its whole vast extent, compelling the special organs in charge of this business to bestow upon the problem very careful theoretical as well as practical thought, with a view to finding a solution and being in a position to judge whether this solution would really answer the general purpose aimed at. It was not mere accident that the experience of local price regulation



in connection with the circumstantial report drawn up by M. Zaitsev, and submitted to the Special Council on behalf of its secretariat, should have caused a debate which for the first time revealed the vast magnitude of the problem confronting the Council. Describing the existing position of price regulation, the report noted, first of all, the specific reasons for its failure, namely, the unsatisfactory composition of the regulating organs, the inadequate control over the actual observance of the regulations, the slowness shown in adapting the regulated prices to the changing basic prices, but mainly the lack of system and coördination in working out the various prices. To a certain extent these faults were due to the absence of precise and unquestionable legal grounds for price regulation.

But the principal part of the report dealt neither with the specific causes of the failure nor with the purely formal questions of price regulation, to which the report ascribed only a secondary importance. What it dealt with at great length was the problem of the economic basis of price regulation. The failure was ascribed, not so much to the improper formulation and systematization of the regulative measures, considered from the administrative standpoint, as to their economic incongruity, due, primarily, to the divergence between the basis and area of regulation, on the one hand, and the process of price formation, on the other.

The conclusion arrived at by the authors of the report was as follows: if the Government feels that it should not confine itself to influencing retail prices alone, when these rise unjustifiably out of all proportion to local wholesale prices, but should aim at a more important object—the maintenance of a proper ratio of prices between areas of supply and areas of demand—then it behooves it to consider the necessity for regulating on a most extensive scale the entire business of supply.

The report was submitted to the large “Commission for Combating the High Cost of Living” organized under the jurisdiction of the Special Council. This commission, after an animated discussion, on December 7 decided that it would require a report on the matter from the statistical subcommittee, in order to be in a position to consider the problem more carefully. This subcommittee was presided over by the member of the State Council, S. E. Brazol, and the Deputy Chairman, Professor Struve.

*Extension of the Powers of the Chairman of Special Council  
To Fix Maximum Prices.*

However, before relating the further progress of events, we must say a few words about a certain measure of organization in the domain of price regulation which bears a very close relation to the supply of the army and which was bound to play an immensely important part in the work of organizing the supply of foodstuffs. We have in mind the so-called "fixed maximum prices."

The statutes of the Special Council did not provide for the right of the Council to prescribe prices that would be obligatory for the public. While the Chairman of the Special Council was entitled to overrule any decision concerning the establishment of compulsory prices, he was not free to establish such prices by his own authority. Viewing this situation as altogether abnormal, the secretariat of the Council, independently of the general problem of price regulation which it had referred to the Council for consideration, drew up a legislative bill for a suitable extension of the powers of the Chairman of the Special Council. This bill was passed by the Council of Ministers and received the approval of the Emperor on November 27, 1915. The Chairman of the Special Council was now granted the power to prescribe throughout the empire or in any particular section of it maximum prices for the sale of food and fodder. Subsequently, this ruling was applied very extensively; but parallel with, and apart from, the question of price regulation, the problem of fixed prices now arose and was given a practical solution.

*Fixed Maximum Prices.*

The system of fixed prices originated at a time when the Chairman of the Special Council did not yet possess the right to prescribe compulsory prices. But he had a right which was quite efficacious, namely, the right of requisition, or of compulsory seizure of food supplies, which made the establishment of definitely fixed prices inevitable. Of this right the Chairman availed himself in the establishment of obligatory prices for government purchases. As the fixed price, he adopted the maximum price which had been previously announced—for a long period—as that at which the Government made its purchases of the given commodity. The effectiveness of such a price was secured by the standing threat of a possible

requisition of any amount of the commodities in question in case of refusal to sell at the fixed price, with a discount of 15 per cent as a penalty in addition.

*Fixed Prices for Oats.*

This system was applied for the first time in the first order of the Chairman of the Special Council, of October 5, 1915, concerning certain measures to assure a supply of oats for the army, for the mines working for the national defense, and for seed. This order, which was to become historical in a certain sense, was made necessary by a general scarcity of oats in the empire, and it served as the source from which, as it were, the entire succeeding food supply system was developed. It laid down the following three main provisions:

1. For the purpose of supplying oats to the army and the mining establishments working for the needs of national defense, and for the purpose of accumulating seed oats, there shall be established at once, in those regions where, by order of the High Commissioner of Grain and Fodder Purchases for the Army, oats are procured for the requirements herein mentioned, fixed prices for oats until the harvest of 1916, to be obligatory for the sellers. The commissioners of the Department of Agriculture will be granted authority, in case of refusal by sellers to dispose of their oats at the fixed prices, to requisition them, with a discount of 15 per cent on those prices.

2. The sale and purchase of oats to private individuals is not prohibited, but every lot of oats that may be suitable for the requirements referred to in Section 1 may be bought and, in case of refusal to sell voluntarily, requisitioned, by the commissioners of the Department of Agriculture. . . .

4. The institutions of local government shall issue announcements to the population that, in view of the need of consigning the available supplies of oats to the army, barley, oil-cakes, and similar foods shall be used for the feeding of domestic animals, and the announcements shall describe the best methods of using these articles as fodder.

It will be seen from this that the order introduced fixed prices, with the threat of requisition as a guaranty of their actual enforcement, merely as an emergency measure, its emergency character being apparent in two ways. First, the enforcement of the fixed prices was to be confined to purchases for the army and for mining



enterprises working for the national defense; the order did not aim at a general price regulation in the general market, but was merely designed to make it easier for the state treasury to obtain the supplies required by the Government. In the second place, it was assumed that the commodity for which the price was fixed should, in the best interests of national defense, be withdrawn from civilian use and replaced by substitutes. Thus the order of October 5, 1915, was only an army supply measure, for the sake of which the supply of the civilian population had to readjust and retrench itself accordingly, being left, as heretofore, to free commerce.

### *Fixed Prices for Sugar.*

An entirely different character was imparted to the fixed prices provided by the second order of the Chairman of the Special Council "concerning certain measures for procuring by government orders the supplies of sugar needed for the population, and concerning the establishment of maximum prices for granulated and lump sugar." This order was promulgated practically at the same time as that dealing with oats, namely, on October 9, 1915. Its main provisions were the following:

1. In order to assure by government orders the supplies of sugar necessary for the population, in all cases where it may prove difficult to obtain them from refineries, banks, commission merchants, and wholesale dealers, and with a view to preventing speculative transactions in sugar, based upon the expectation of increasing prices, maximum prices are established throughout the empire for granulated and lump sugar, and the sale of this sugar to the Government and to such public and business organizations as shall be charged with this work, shall be obligatory on all owners of sugar. . . .

5. In case of refusal by owners to sell the sugar at the fixed prices to institutions and individuals named by the Government, the commissioner of the Chairman of the Special Council on Food Supply is authorized to requisition the required amount of sugar in the warehouses of refineries, banks, and dealers, at railway depots and in trucks, with a reduction of 15 per cent on the fixed prices. . . .

6. With the promulgation of the present rules . . . the regulated prices for lump sugar provided by the order of the Minister of Commerce and Industry of July 25, 1915, are abolished as well as all regulated prices lower than the prices provided by Sections 2 and 3 of the present rules.

We have here, accordingly, an entirely different picture. In this instance fixed prices are not used exclusively for the purpose of procuring sufficient army supplies, but as an instrument for influencing general market prices; and this is why requisitions are no longer made by the purchasing commissioner, as in the case of oats, but by the commissioners of the Chairman of the Special Council, whose duty it is to secure a proper supply of foodstuffs to the entire population within their own territory.

*Difference between Regulated and Fixed Prices.*

In these circumstances the Special Council and its organs, in considering the report of the secretariat above referred to, had to take into account two new factors that were not discussed by the report: the grant to the Chairman of the Special Council of the exclusive right of prescribing maximum (regulated) prices, which the public was obliged to observe; and the practice of the Special Council of establishing fixed prices at two different rates—one intended solely for the supply of the army, the other, for the regulation of prices throughout the empire. The now perfectly obvious difference between the two basic forms of influencing prices, that is, between the regulated and fixed prices, was of theoretical importance. A regulated price is one decreed to be obligatory in all transactions of the population at large, and the infringement of such a decree is to be punished as a criminal offense under the law.<sup>1</sup> A fixed price, on the other hand, is the purchase price payable by the properly authorized government organs and fixed in advance to cover the whole ensuing purchasing campaign, its actual enforcement being guaranteed merely by the threat of requisition, carried into effect if necessary, and this, in case of refusal to sell, at a reduced, punitive price. In its economic significance, price regulation has in view the consumer, being designed to fix the price of his purchases, while the fixed price has in view the producer, being designed to fix the price

<sup>1</sup> Under the decree of November 27, 1915, breaches of price regulation established by the Chairman of the Special Council entailed the same consequences as would follow the violation of other decrees or orders of the Chairman, that is, confinement in a prison or fortress for a period not exceeding three months, or a fine of not more than 3,000 rubles; and in case of deliberate evil intent, imprisonment for a period of one year and four months up to two years, with the forfeiture of special rights and privileges.

at which he sells, with regard to the interests of certain qualified purchasers. Subsequently, as will be seen, this distinction between regulated and fixed prices was in a large measure obliterated by the extension of fixed prices to all transactions, although not wiped out entirely.

*Discussion of the Report on Price Regulation, and the Conclusions of the Statistical Subcommittee.*

We can now review the discussion which followed the submission of the report on price regulation. This discussion was naturally bound to expand into a consideration of the basic problems of food supply and, at a certain stage, even of the general food supply policy in its entirety. The Statistical Subcommittee discussed the report of the secretariat at its meeting of December 10, and arrived at the following conclusions, which it presented to the Commission for Combating the High Cost of Living:

1. Independent, isolated price regulation cannot be regarded as an adequate means of combating the high cost of living.

2. Influence may be exercised by regulation of prices in the consuming localities only if the supply of the regulated commodity itself is regulated. Specifically, it is necessary to concentrate in the hands of the commissioners of the Chairman of the Special Council on Food Supply the control over the disposal of those documents which authorize the transport of goods under orders of the Ministry of Transport within the limitations of the established freight schedules, as well as the supervision of the actual transport of such goods. The Commissioners may render assistance in supplying the regulated articles, that is to say, by the grant of transport permits, by ceding supplies held at the disposal of the commissioners, and so on, on condition that such articles shall be sold at the fixed prices. In certain cases it may be found necessary to organize the distribution as well as the consumption of a regulated commodity.

3. In the event of special difficulty in procuring commodities in the producing localities, it will be necessary to establish fixed maximum prices, with the right of requisition by the commissioners. These fixed prices are to be adopted for each separate commodity after careful consideration by the Special Council on Food Supply, taking into account the conditions of production, transport, and distribution of the commodity in question. The area in which the fixed maximum prices shall operate is likewise to be determined for each commodity separately.



4. The elaboration of the schedules of regulated prices and the execution of the measures connected therewith are left to the commissioners of the Chairman of the Special Council, with the coöperation of local conferences to be formed by the commissioners, with the obligatory participation of representatives of municipal and zemstvo institutions.

These findings were in entire agreement with the principles advocated in the report of the secretariat, linking price regulation with transport regulation, but at the same time they proposed to base price regulation in the consuming areas, in case of special difficulty, upon a system of fixed prices in the producing areas.

*Arguments of the Opponents of the Price Regulation.*

Those members of the Commission for Combating the High Cost of Living who were opposed to State intervention did not leave these conclusions unchallenged.<sup>2</sup> Their arguments were summarized in the journal of the private conference held under the chairmanship of the member of the State Council, N. N. Pokrovsky, on December 31, 1915. Their fundamental idea was that "under existing conditions in Russia, when there is an absolute surplus of products, with only local scarcity due to disorganization of transport, price regulation is absolutely ineffective." This ineffectiveness was demonstrated also in the report of the Statistical Subcommittee, for, if one examined more closely the measures recommended therein, one would find that the effectiveness of generally compulsory prices prescribed by the Government depended upon monopolization by the Government of the regulated commodities. The conference had been able to draw the same conclusion from its observation of daily practice in the supply of sugar, where "neither the establishment of price regulation nor the fixing of prices for government purchases had of itself proved sufficient to provide the population with an adequate supply of sugar at definite prices." Measures to assure an

<sup>2</sup> The private conference of those members of the Commission for Combating the High Cost of Living who opposed State intervention had on its agenda for discussion not only the findings of the Statistical Subcommittee of M. Brazol, but also a detailed memorandum of the representative of the Union of Towns accredited to the Special Council, M. Grohman, who favored very drastic measures with a view to carrying out without further delay all supply plans throughout the country. On the whole, public opinion kept on persistently driving the Government toward a policy of maximum intervention in the economic life of the nation.

adequate sugar supply proved efficacious only where the Government itself undertook both purchase and distribution, and "by this time it appears to be absolutely unquestionable that a final and complete solution of the problem of supplying sugar to the public lies in the direction of a government monopoly of the entire business."

Against such a conclusion, however, which was to be applied to the whole food supply problem, the conference protested very strenuously, finding it obviously unrealizable in actual practice. Deliveries in particular, they thought, would not only fail to be improved if supply were entrusted to the Government, but, on the contrary, would suffer even more.

In these circumstances, the proclamation of a theoretical necessity for so extensive an intervention of the State in the business of food supply would prove not only undesirable, but even dangerous, because of the implication that the Government itself had assumed all responsibility for the adequate and equitable supply of the public with food-stuffs, when there was utter uncertainty as regards the possibility of really carrying out the obligations assumed in this respect. [And, again,] the solution of the problem of food supply, in the firm conviction of the conference, must be sought, not in the direction of a nationalization of the whole business of food supply, but exclusively in the improvement of transport facilities, because no governmental regulation of any description, no matter how far-reaching and all-inclusive in conception, can take the place of the trucks and locomotives that are lacking, and furnish sufficient food for the needs of the population, or, in any event, furnish more than competitive commerce could furnish.

Owing to such considerations, the conference found that price regulation as an isolated measure would not answer the purpose aimed at, concurring in this regard with the findings of the subcommittee of M. Brazol, but holding at the same time that the system of governmental organization of food supply proposed by that committee would be impossible of practical realization.

#### *Professor Struve's Answer.*

The resolution of the private conference drew a sharp reply from Professor Struve, representing the All-Russian Union of Zemstvos at the Special Council. In his dissenting view, he stressed the point, first of all, that

the inadequacy of transport, whatever its underlying causes may be at the present moment, cannot be remedied entirely by any measure, even if it were the most drastic, and this must be reckoned with as a fact due to the War itself. . . . In Russia, the inadequacy of the mechanism of transport, aggravated, to be sure, but by no means caused by the lack of system and by all kinds of abuse, represents that factor which constitutes the center of gravity in the entire problem of the food supply.

While sharing the view of the private conference in this particular respect, Professor Struve refused, however, to support its conclusion that "the Government may refrain from intervention in the economic life of the country and from assuming the responsibility for its course, while maintaining the fiction of free commerce, which cannot, and actually does not, exist under wartime conditions. . . ." On the contrary, in the opinion of Professor Struve, "it is precisely the insufficiency of transport facilities that points to the field in which the regulating measures of the Government ought to be applied." Vigorously upholding the permit system of transport, Professor Struve linked with it and advocated both regulated and fixed prices.

Only under the permit system of transport, in conjunction with a system of fixed prices in the producing areas and regulated prices in the consuming areas, will it be possible to attain an adequate supply of foodstuffs for the requirements of the population, thereby doing away with the speculative inflation of prices. All objections to fixed and regulated prices—and if the latter were only rationally conceived, they could not help being based upon fixed prices—are valid only when they refer to these measures uncoordinated with the permit system of transport. Rejection of the permit system would discredit the system of fixed prices and deprive it of all meaning, from the standpoint of a general regulation of prices; for in this case the fixed prices, while relieving the situation so far as the government treasury is concerned, would surrender all the remaining economic business to the grasp of selfish speculation. The same thing would happen if, while the system of fixed prices and a permit system were retained, those regulated prices which affect immediate consumption were to be abolished, for in that case all regulation of prices and supply would only serve to benefit the local merchants.

The problem of a rational organization of the food supply [Professor Struve concluded], does not consist in the fantastic pursuit of the ideal of competitive, free commerce, which is impossible under con-



ditions of a strict militarization of the entire national life; nor does it consist in the abolition of regulated prices, because this, being merely a negative measure, would only discredit the Government; but rather does it consist in a well planned, well reasoned harmonization of necessary measures by a governmental authority which is alive to its responsibilities and does not fear them. If, in the planning of theoretical schemes of state intervention, one can see danger in the assumption by the Government of the responsibility of proclaiming such extensive plans, there would be not one whit less, but possibly even more, danger in a deliberate self-effacement of the Government, on principle, from all intervention in the country's economic life, at the present critical moment, only because it lacks confidence in its own power.

*Report of the Secretariat before Plenary Meeting of the Commission for Combating High Cost of Living.*

The views of the secretariat of the Special Council and of the statistical subcommittee were supported only by a minority in the Commission for Combating the High Cost of Living. This minority contemplated the possibility of constructing, upon the basis of

fixed prices in the producing areas, the permit system of transport, the regulation of wholesale prices in the areas of consumption, and the regulation of retail prices upon the basis of the latter prices, . . . a well organized system of food supply for the population, on the principle of government control of and coöperation with private trade, the same to be under the direction of the Government, in which system all links of the chain are to be bound up with and interdependent on each other.

The majority—10 to 3—upheld the contention of the private conference. Deeming it impossible to reject entirely the regulation of retail prices, and still less that of wholesale prices, which was looked upon as a measure to be handled with the greatest caution, the majority of the commission emphatically rejected the general system of food supply recommended by its minority, and by the secretariat. To the majority, it seemed impossible of practical realization and therefore only harmful. A middle ground was taken by the Deputy Chairman of the Special Council, M. Glinka. In a special report submitted by him, he supported the majority opinion in so far as it insisted upon limitation of intervention by the Government in the work of food supply, but he deemed it indispensable, in those

rare cases where regulation of wholesale prices should be found necessary, to have these prices based upon those measures which had been proposed by the minority, that is, that there should be both fixed prices in the producing areas and a permit system of transportation.

*Report of Secretariat Considered by Special Council.*

Under these unfavorable, not to say hopeless, conditions the report of the secretariat was presented to the Special Council for discussion and decision. The membership of the Special Council was almost identical with that of the Commission for Combating the High Cost of Living, and the decision now depended upon the view that would be taken in this matter by the Chairman of the Special Council, M. Naumov, who presided at this meeting. Having heard both sides, he announced that he could not regard the question as sufficiently elucidated, but, in any case, he declared himself unable to agree with the views of the majority. Still, considering it impossible, at this stage, to side definitely with the minority, he requested the Commission for Combating the High Cost of Living to reconsider the matter on its merits without delay, in connection with a new memorandum that had been submitted to him by the secretariat. On the following day there took place, under the chairmanship of M. Pokrovsky, another meeting of the commission, with the result that a resolution was adopted, after an animated debate, embodying the principal propositions of the minority of the commission. It should be pointed out here that this turn of affairs was not only due to the views, now made fully apparent, of the directing chief of the food organization; it was also attributable to the circumstance that many of those belonging to the majority were driven to admit that a regulated system of freight shipments, at any rate, was already an accomplished fact; and in this connection they found themselves compelled to agree to regulation of the supply itself, even if they continued to harbor grave misgivings over such an extension of State intervention, predicting that government monopolization of the entire food supply would inevitably follow. It cannot be denied that in this respect the opponents of the recommendations of the secretariat and the minority of the Special Council proved to be absolutely right.

*Rules of February 12, 1916.*

At length, on February 12, 1916, the Ministry of Agriculture published the following rules, approved by the Special Council, "concerning certain measures for the regulation of the supply of foodstuffs to the population, and concerning the method of elaborating and introducing the regulation of food prices." In case of difficulty in supplying certain localities with sufficient food, a regular schedule of rail transport could be used, on the strength of special certificates issued by the commissioners of the Chairman of the Special Council; for unscheduled transport, a general rule was provided, according to which only those freights were entitled to express transport which were consigned to the commissioners themselves, on their certificates (this was the permit system of transport). The question of starting a system of schedule transport to any particular area was to be brought to the attention of the Chairman of the Special Council by the local commissioner after discussion in the local councils. To assure the sale of foodstuffs at proportionate prices, the commissioners were granted the power of making the issue of transport permits contingent upon the undertaking of the obligation, by those by whom such permits were sought, to sell such commodities at prices determined beforehand or in proportion to the prices charged at the source of the supply; it was provided, furthermore, that such traders should follow the order of distribution prescribed by the commissioner. There were, however, the following reservations: (1) goods acquired by zemstvo and municipal boards were not subject to distribution by the commissioner, and other goods were to be so subject only in exceptional circumstances, and (2) the method of the application of the permit system itself, and especially the distribution of consignments received, were to be determined by the commissioner after discussion at the local councils. Should it prove impossible in this way to assure an adequate supply at fair prices, the commissioner might recommend that the Government itself should acquire the necessary food supplies at fixed prices. If, in addition to the measures taken under the permit system, it should appear necessary for the maintenance of a normal price level to provide regulated prices, these might be introduced in the manner described below.



The initiative in establishing regulated prices was to rest with the higher local administrative authorities, the commissioners of the Chairman of the Special Council, and municipal and zemstvo institutions, while the decision as to the actual need for regulation of prices and the designation of those articles that should be subject to such regulation, together with the scales, or rates of the regulated prices, were to be left to the local councils under the commissioners. Such a council was to be called under the chairmanship of the commissioner or his representative and was to comprise representatives of various government departments, of the respective municipal and zemstvo institutions, of exchange committees or business organizations, of local coöperative societies, of associations of the All-Russian Unions of Towns and of Zemstvos, and of the local war industries committees, at the rate of one representative for each institution or organization, besides such persons as the chairman might invite (in an advisory capacity) and such members of the Special Council as might happen to be present. If approved by the commissioner, the regulated price schedules were submitted to the highest provincial authorities for their confirmation and publication, and the same authorities were required to enforce these price regulations and prosecute offenders. Should there be disagreement between the commissioner and the provincial governor, the final decision rested with the Chairman of the Special Council. All price regulations were to be brought to the attention of the Special Council immediately after their promulgation, with a statement of the reasons that rendered their adoption necessary, and with a specification of the schedules, or rates. It was for the Chairman of the Special Council to decide whether he should amend or repeal the regulations, either in the process of review (or "revision") or on complaint by persons or institutions concerned.

Price regulation was to apply only to articles of prime necessity for mass consumption. Regulated retail prices were to be determined in proportion to wholesale prices, or to regulated local wholesale prices, should such be established. Regulated wholesale prices were to be determined in conformity with the fixed prices in the areas of production. In establishing the various price regulations, due account was to be taken of freight costs, overhead charges, and commercial profits. All existing price regulations were to be re-

vised at once in accordance with the above rules, and, if it was found desirable to continue them in force, they were to be submitted for confirmation to the Special Council.

*Characteristics of the Rules of February 12.*

The decision of February 12 proved to be a victory for the advocates of government regulation, but the influence of the majority was felt in the extremely cautious and moderate formulation of the objects and methods of the regulation: transport schedules, the organization of distribution, government purchases at fixed prices—all these things were looked upon merely as exceptions to the prevailing system of free commerce limited by the use of the permit system of transport. On the basis of this permit system, there was outlined a new method of influencing prices in the most moderate and elastic manner—by the “commensurate” price—that is, a price determined definitely in reference to a given lot, or consignment, of goods, and depending upon the market where it is procured.

In this moderate form, which the Rules of February 12 gave to the regulation of supply, the whole system was destined to become obsolete even before the decree could be promulgated. Circumstances were such as to lead toward a general, all-round organization of the entire business of supply. The majority in the Commission for Combating the High Cost of Living were in error when they considered it possible to restore competitive commerce in the face of a general insufficiency of transport facilities, but they were, on the other hand, perfectly right when they predicted that further steps along the road of government regulation would prove inevitable and insisted that prices could be influenced effectively only to the extent to which the supply was under actual control, that is, only if the Government assumed complete control of purchase as well as distribution. Elsewhere in this volume may be found a detailed account of the development of the organization in respect of the principal and most typical articles of supply (grain, sugar, salt, meat). Here, we shall deal with the process only in its most general features, in so far as it bears upon the problem of price regulation.

*Utilization of the Machinery of Fixed Prices To Satisfy  
the Needs of the Population.*

We have seen that the two initial decrees inaugurating fixed prices provided for two variants of government intervention: in the case of oats, fixed prices had in view the interests of the army, neglecting the interests of the population at large; in the case of sugar, the fixed prices had in view the interests of the population, paying no attention to the interests of the army (already secured in another way). In the extension of fixed prices to other commodities, a middle course was at first adopted: to begin with, prices were fixed in order to assure a supply for the army, but these could be applied also for the benefit of the public. The decree of December 6, 1915, fixing prices for millet, buckwheat, buckwheat grits, rye, and rye flour, is already designated a decree "concerning purchasing measures, on government orders, for the purpose of supplying the army and population" with these commodities. The decree of January 3, 1916, on the enactment of fixed prices for wheat and wheat flour states plainly that these prices are established "for the purpose of supplying the army or the population." Gradually, this formula comes into general use. No longer confined to grain, it was adopted in the decree of January 31, 1916, establishing fixed prices for hay and spring straw. While the decree of June 8, 1916, fixes prices in Siberia for butter up to September 1, 1916, for army purchases only, that of September 12 of the same year already applies them to both army and civilian supplies. The only thing that remains throughout an exclusively military commodity is low-grade tobacco (*makhorka*), since this cannot be classified as an article of prime necessity for the civilian inhabitants. Although the decree of June 2, 1916, by which the prices of tobacco were fixed for the first time, makes no reference to its being an exclusively army article, this was assumed as a matter of course. But in the decree of November 14, 1916, and likewise in that of March 8, 1917, issued under the Provisional Government, fixed prices for tobacco were established only for the needs of the army.<sup>3</sup>

Such a broad interpretation of the scope of fixed prices, as com-

<sup>3</sup> We must bear in mind, however, that the maximum selling prices of tobacco were regulated under the normal legislative procedure by the Ministry of Finance.



pared with the practice observed in the case of oats, was in perfect accord with the Rules of February 12. It should be emphasized in this connection that these regulations rested upon what was more or less an already established practice, rather than the reverse, in so far as this broader interpretation was concerned. But after the publication of these regulations the practice went even further. What these regulations treated merely as more or less of an exception, now showed a tendency to become the general rule. In short, the question of extending fixed prices to all transactions whatsoever was there, and becoming increasingly urgent.

*Extension of Fixed Prices to All Transactions.*

Elsewhere in the present work the process of price formation under conditions of war-time economy, and more particularly the divergence between fixed and competitive prices, have been treated at length. The elimination of this divergence, and the unification of prices by subjecting the competitive prices to the rule of fixed prices, was not only a question of supplying the population with goods at fair, or "commensurate" prices, but was the indispensable condition of successfully provisioning the army, since the existence of competitive prices exceeding the fixed prices tended to paralyze the purchasing operations. Practical experience, however, had taught that effective fixed prices could not be established by mere decree, but that nothing less was involved than the full control of supply, and the adoption of methods and measures of organization that would actually assure delivery of goods at the fixed prices. In such organization work the whole of 1916 was spent.<sup>4</sup> The list of the various commodities was headed by sugar. Here, there had been no proclamation of fixed prices for all transactions; it was merely stipulated that *Centrosakhar* should intervene in all sugar purchases, and this made the fixed sugar prices to all practical purposes actual monopoly prices. In the case of salt, fixed prices for all transactions were first provided by the decree of April 2, 1916, in connection with the establishment of the salt committees, which were empowered to purchase at these prices any quantity of salt and pro-

<sup>4</sup> The progress of this organizing activity is described in the separate chapters of the present work treating of the principal foodstuffs.

vided with the required transport facilities.<sup>5</sup> On May 12, in connection with the commissioning of the zemstvos to buy cattle and meat under the levying plan, fixed prices for cattle were extended to all purchases by private persons and institutions. Lastly, with the establishment of fixed prices for the grain of the new harvest, in the autumn of 1916, the same principle was applied to this, the principal article of food. By the decree of September 9, 1916, fixed prices for grain were established for government purchases, purchases by public organizations, and for all business transactions. An identical formula was used in the decree of September 19, 1916, which established fixed prices for rye and wheat flour.

*Substance of the Formula of "Extension of Fixed Prices  
to All Transactions."*

If we look for the real substance of this formula of "extension of fixed prices to all transactions," we shall see that it includes a great many things, and that, in so far as it is actually observed, it becomes an entirely different matter, namely, a *monopoly* of the supply. The considerations underlying the Rules of February 12, 1916, as we have seen, were as follows: From locally fixed prices, *via* the permit system of transport, a bridge was thrown across to the regulated prices in the areas of consumption. This was not a compulsory system, the fixed prices were not supposed to cover everything everywhere, and this is why another system of price regulation was also provided, working through the same principle of the permit system of transport: this was the definite regulation of prices on a level that was commensurate with the purchase prices, which did not necessarily coincide with the fixed prices. But when once the fixed prices are extended to cover *all* transactions, the situation changes, for thereafter no room is left for the "commensurate" prices, and the consuming areas must introduce everywhere price regulations based upon the fixed purchase prices. This, however, requires one thing: the possibility of actually procuring the regulated commodity at those prices which form the basis of the regulated prices.

Those measures of organization which were at the disposal of the

<sup>5</sup> Sometimes the Government bought up all the available salt and shipped it by water, under its own control. Cf. Chapter XI.

Government under the Rules of February 12, 1916, that is to say, a purchasing machinery existing in the areas of production, the permit system of transport, and a distributing machinery in the areas of consumption, were indispensable and adequate for the extension of fixed prices to all transactions only in respect of those articles that happened to be abundant in the producing regions. As regards these, the impossibility of shipping such articles without the sanction of the controlling institutions afforded the opportunity of buying at the fixed prices. This was the case with the salt of the Donets and Crimean regions. It was easy to buy these articles at prices not exceeding those fixed, and it was only necessary to secure that prices should not be inflated because of market conditions at the destination of these shipments. The permit system of transport could prevent such inflation. In other words, it was capable of overcoming merely that dualism in prices which was observed between areas of production, on the one hand, and consumption on the other. In short, it could avert that unwarranted increase of prices which was occasioned by the reduced transport facilities. But the permit system proved useless in overcoming the dualism of competitive and fixed prices due to the actual scarcity of the given article in the area of its production. For example, if a person had at his disposal a freight train for the conveyance of Crimean salt, not only could he have bought without any trouble the salt at fixed prices, but he might possibly even have obtained it, with some slight exertion, at a still lower price. The only thing that mattered was that this salt should be sold at the price ruling in the producing area, plus freight, overhead charges, and a normal profit, and not at prices dictated by the ratio of supply to demand in the area of consumption. In the case of sugar, however, it would have been different. Inasmuch as he would have had to buy sugar in the open market, the buyer who had at his disposal a freight train for its transport would have found no sugar at fixed prices, but would have had to pay considerably more than these. The only way in which he could have obtained the sugar at fixed prices would have been by applying to those organs which bought sugar at such prices; that is to say, the existing measures of organization, especially the permit system of transport, would have been of no avail in this case, and the sugar would have had to be obtained at the fixed prices from the government supply organization.



*Fixed Prices and Government Monopoly of Commerce.*

This was true not only of sugar but of other foodstuffs, especially grain. As regards these articles, the extension of fixed prices to all transactions signified the grant of the right to all the consumers of such articles to demand of the government supply organization that it should let them have the required supplies at fixed prices. This was provided by the Rules of September 9 among others, which extended fixed grain prices to all transactions. According to Article 2 of these rules, public organizations and other institutions and individuals desiring the assistance of the authorities in purchasing grain at the fixed prices were required to apply to the commissioner of the Chairman of the Special Council on Food Supply at the destination of such grain. These requests were to be granted by the commissioners within the limits of the general supply schedules approved by the central supply organs (Central Flour Bureau and the High Commissioner of Grain Purchases for the Army). In other words, the extension of fixed prices to all transactions does not transform the fixed into regulated prices, that is to say, into generally compulsory prices of which the non-observance is to be punished as a criminal offense. Fixed prices still remain what they are, the purchase prices guaranteed only by the fact of their actual observance, and thus the whole center of gravity shifts to the question how far this could be realized in actual practice. The problem of extending fixed prices to all transactions now becomes a question whether all transactions are actually negotiable at fixed prices. Such actual negotiability, as had been shown in practice, is possible only in the various forms of purchase organized by the government itself; for, so long as private transactions continue to be tolerated, even under the outward appearance of fixed prices (should that be unavoidable), the competitive price will stubbornly prevail and its influence upon prices in the consuming regions cannot be eradicated by any regulated or fixed prices such as were provided, for example, by the above-mentioned decree of September 9 for the producing areas. But still more important is the fact that the continuance of competitive business, even after the principle of an extension of fixed prices to all transactions has been proclaimed, has a paralyzing effect upon purchases at fixed prices. From the point of view of the possibility of basing prices in the con-

suming areas upon fixed prices, the extension of fixed prices to all transactions amounts to a requirement that there shall be, not only in form, but in fact, opportunity of obtaining supplies for the population at such prices, out of the government stores. And from the point of view of the possibility of effective accumulation of such government stores, this extension of fixed prices becomes the requirement that the producers shall be actually as well as nominally prevented from selling at any but fixed prices, in other words, to any but the Government's purchasing agencies. Together, these two requirements amount to the same thing, namely, that the Government must intervene in the wholesale supply business of the given article.

Both theoretical reasoning and practical experience suggested this conclusion, which, as we saw, had been so clearly realized by the opponents of State intervention. The Government was bound toward the goal of a monopoly of supply. In the case of sugar, this was reached even before the March Revolution. Matters were tending in the same direction also in the grain supply, before the same Revolution. But here we must note the remarkable attempt to stem the inevitable course of events made by M. Rittikh, who took the place of Count Bobrinsky as Chairman of the Special Council. We refer to his famous grain levy.<sup>6</sup> This was supposed to accomplish for grain what had been done for the supply of meat: to begin by taking, as a national duty, everything needed for the army, institutions in connection therewith, and localities in particular want, and to preserve, or, more properly speaking, restore, freedom of commerce, modified by the permit system of transport, for the remaining business. But the Revolution drove matters decidedly in the earlier direction. Step by step, all articles were monopolized by the governmental supply organization in its various forms described in detail in the chapters treating of each particular article.

*Fixed and Regulated Prices Transformed into Purchase and Sale  
Prices, Respectively, of the Government Monopoly  
of Commerce.*

It is interesting to note that from the moment of the extension of fixed prices to all transactions the significance of fixed and regu-

<sup>6</sup> Cf. Chapter IV.

lated prices, *per se* as well as in their mutual relation, is entirely changed. We have seen that, during the period when governmental regulation was in course of development, the ideas of fixed, regulated, and "commensurate" prices had been differentiated. We stated that the idea of a commensurate price, as an independent form of price regulation differing from regulated prices, was abandoned at the moment when the principle of the extension of fixed prices to all transactions was proclaimed. With the actual realization of this principle, the conceptions of regulated and fixed prices in their hitherto separate forms were likewise given up. After this, the fixed price was no longer an obligatory purchase price for the open market, enforceable through the possibility of taking possession of any amount of the goods in question and paying for them at a reduced, punitive rate in case of refusal to sell voluntarily. Instead, it became a payment made to the producer of an article which was recognized as the property of the State and excluded entirely from commercial transactions, and not the payment for a relatively free purchase stimulated by fear of requisition in case of refusal to sell. Hereafter, the Government appropriated the entire output, paying for it a definitely settled price. This, to be sure, likewise constitutes a *fixed* price, when we stress the fact that it was definitely settled and inflexible for the entire period of production. But it was a fixed price in an entirely different sense. The punitive discount on the price may in this case be retained,<sup>7</sup> but this also assumes a different meaning. It no longer signified the exercise of pressure to induce voluntary sale, for there was now no possibility of any voluntary disposal of goods; compulsory alienation had taken its place. Hence, the discount could only mean a fine for tardy delivery of the monopolized article to the Government, or for an attempt to evade delivery entirely. Thus an identical external form now covered a different inner reality. Similarly, regulated prices hereafter took on a new meaning. No longer were they the generally obligatory prices prescribed for private business, but rather prices to be charged to consumers for articles monopolized by the Government. Here, too, criminal punishment might be retained in force, but it would no longer be the penalty for breach of a price regulation generally compulsory, but rather for selling at the

<sup>7</sup> Under the Provisional Government, even at the close of its existence, this discount was raised from 15 to 30 per cent.



wrong price a government-monopolized article handed over to a certain person or organization for distribution among the population. The retail merchant no longer bought the goods to sell to the customer. He now became in part a commission agent and in part even something like a government official engaged in the distribution of that particular commodity. It was the fundamental proposition of the whole supply situation that there was not enough of that product to be had to supply the entire demand. For that reason it was transferred to the retail dealer, on certain terms that would guarantee a fair and equal distribution in accordance with the schedules provided by the government organs, and the distribution was placed under the actual control of the Government. Under these conditions there was no longer a regulated price which was obligatory in business transactions, but a government sale price at which the monopolized commodity was to be sold by the retail merchant acting in the capacity of a government agent. Fixed and regulated prices finally combined, as two different phases of the same single system of supply, to form the purchase and sale prices, respectively, of commodities monopolized by the State.

## CHAPTER III

### TRANSPORT POLICY

#### I. TRANSPORT BY RAIL

##### *The First Measures.*

THE enormous demands which the outbreak of the War made upon railway traffic upset from the first the normal dispatch of ordinary freight as carried on under the regulations in force before the War. It became necessary to make some kind of selection among the freight offered for conveyance, in accordance with its relative importance, regardless of the order of priority in which it might be received for dispatch. At first, the appropriate measures were adopted by the railway administrations in the form of isolated orders for the exceptional, or preferential, conveyance of all kinds of freight, both as regards single consignments and entire categories of freight, either for definitely stated periods or until these orders should be rescinded. Later, taking into account the experience gained with such orders, the railway administrations issued a circular order, on July 27, 1915, establishing a general schedule for the carriage of ordinary freight, substantially as follows.

All consignments were divided into preferential and regular. Preferential freight, in turn, was divided into four classes—*A*, *B*, *C*, *D*—the *A* class including military freights, especially “food, fodder, and other freight provided for the army by the Department of Agriculture and shipped on military freight orders under letter *N*.” The *D* class included “preferential freight shipped for the purpose of satisfying public needs,” and there was, furthermore, a subsidiary class, *d*, which covered “food-stuffs consigned to provincial governors on orders from the Special Councils, Regional Committees, or the Central Committee.” All regular freight was similarly divided into several large classes—*1*, *1A*, *2*, *2A*, *3*, *4*, *5*. Foodstuffs consigned by various public organizations came under *2A*; to obtain this classification, the consignors had to produce at the dispatch station certificates signed by the heads of such organizations, showing the amount of freight offered for dispatch to have been actually prepared by the organization named and stating the

destination. In the case of freight offered by consumers' coöperative societies and by coöperative associations, such certificates had to be obtained from the respective municipal and zemstvo authorities.

*Freight Schedules for Army Consignments.*

So far as the food supplies of the army were concerned, these regulations merely sanctioned established usage under which military consignments had enjoyed a maximum of preferential dispatch and a position entirely apart from other freight. Still, it cannot be said that the transport of foodstuffs for the army was something entirely unforeseen and unprepared for by the railways: as a matter of fact, such transport was carried out according to schedules that had been prepared in advance. At first, these schedules were elaborated at the Army Supply Department in Petrograd, with the coöperation of representatives of the Ministries of Agriculture and of Transport, and of the Division of Military Communications. After the establishment of the Special Administration of Front Zone Railways at the Headquarters of the Supreme Commander-in-Chief, and of the Provisional Directing Committee for Railway Traffic at the Ministry of Transport, it was customary to determine the monthly food and forage quotas of the army and the routes for their transport at periodical conferences held at the Headquarters of the Supreme Commander-in-Chief, and the orders for such transport would then be issued by the Provisional Directing Committee just mentioned. The transport was in both cases effected in the preferential order provided by the regulations of July 27, that is, on military freight orders under letter *N*, within the limits of the established schedules.

*Difficulties in Conveyance of Food for the Population.*

Placed in such exceptionally favorable conditions, the conveyance of foodstuffs to the front proceeded smoothly, although even now a deficit of 10 to 15 per cent in the transport required was not an unusual occurrence. But the remaining consignments of foodstuffs were in a relatively unfavorable situation and these had to bear the full weight of the general inadequacy of railway facilities. Previous to the regulations of July 27, transport permits would be issued at the special request of the central organs concerned, for



certain specific, preferential consignments of foodstuffs for the population, or for carriage by through trains going without reloading and uncoupling from point of dispatch to destination. But these were merely incidental measures and not always effective. The regulations of July 27, as a general rule, placed foodstuffs well toward the end of the schedule, and, with a large amount of freight awaiting transport, this signified, ordinarily, nothing more nor less than that consignments of food were doomed to be left lying about the stations.

*Revision of the Regulations of July 27, 1915.*

Such a state of affairs, needless to say, could not be tolerated, and presently the Special Council on Food Supply proposed the revision of the regulations of July 27. The Special Council on Transport discussed the recommendation, but considered it inadvisable to alter the regulations. And, as a matter of fact, ordinary common sense would suggest that the mere shifting of freight from one class of preferential conveyance to another, when there was a general dearth of transport facilities, could produce no essential improvement in the situation, but would merely lead to a transfer—more or less rapid according to the degree of pressure brought to bear by the institutions concerned—of all other freights of about the same importance to the same class of preference. Presently, things would return to the former condition, where freight that had been granted priority could nevertheless obtain no transport, because facilities were lacking. The organs in charge of the supply work were compelled to admit that under the transport handicap from which the country was suffering, the system of preferential conveyance, implying, as it did, the existence of considerable elasticity in the transport system and of an excess supply of rolling stock, had proved entirely inadequate, and that a solution of the problem should not be sought in racing one kind of freight ahead of others, but in changing the entire system of transport, that is to say, in adopting a system of transport by schedule. A maximum utilization of existing transport facilities, on the one hand, and the certainty of the actual dispatch of freight accepted, on the other, would be feasible only if freight schedules were worked out in advance. Only if the central organs in charge of the railway traffic had previous

information concerning the amounts, kinds, and dispatch stations of freight offered for conveyance, would they be able to (1) select most advantageously, with reference to the relative importance of the various freights, those freights which could be carried at all under prevailing technical conditions, (2) make the best possible use of all available transport facilities, and (3) offer actual assurance of transport for freight included in the schedules after proper consideration of all circumstances.

*First Attempts at Transport by Schedule for the Population.*

The recommendation of the Special Council on Transport that a general freight schedule should be drawn up was approved by the Council of Ministers, and on November 13, 1915, the Minister of Transport requested the Minister of Agriculture to furnish the data on which such a schedule might be elaborated. At the outset, it was to be confined to twenty-two provinces in northern Russia. As the food supply of the country was not yet under the control of the organs of the Special Council, the work of elaborating the required schedule could, in the main, be only of a statistical nature. The secretariat of the Special Council addressed a questionnaire to the municipalities, and on December 7, 1915, the replies having been properly tabulated and printed in a somewhat condensed form,<sup>1</sup> they were submitted to the Ministry of Transport. By this time the Provisional Directing Committee previously referred to had been organized under this Ministry. The organs that had hitherto regulated transport, the Central and Regional Committees, were not abolished after the creation of the Directing Committee, but relegated to the background. The Directing Committee now became the active organ regulating all freight movements, the transport of food included.

Upon closer acquaintance with the problem it was found that it was by no means as easy to change the prevailing system to one of schedule transport as might have appeared at first sight, when it was still in a theoretical stage. The reason was that, from the standpoint of the expected and inherent advantages of a practical schedule of freight transport, the question was not one of establishing

<sup>1</sup> *Materialy k Planu Zheleznodorozhnikh Perevozok . . . (Materials for a Schedule of Railway Transport of Foodstuffs for the Months of December and January, According to the Statements of the Municipalities).*

more or less approximately those quotas of supply that had been provided by past statistical data; neither was it a question of ascertaining now the approximate requirements of the several areas of consumption and the places from which they expected their supplies to be dispatched. Such data, no doubt, afforded more or less reliable grounds upon which to base the calculation of freight movements that might be definitely expected. They were useless, however, as a tolerably solid foundation for a really effective freight schedule, because they offered no sort of security that the freight would in fact be offered at the expected dispatch stations. On the other hand the elaboration of the freight schedule entailed such serious difficulties for the Ministry of Transport that the immediate introduction of the measure on a large scale was impossible. The advantages inherent in a system of schedule transport were not questioned, but the obstacles in the way of the practical inauguration of the system kept on increasing as the moment of its application on a large scale drew nearer. This is why the Directing Committee at first confined itself to a mere experimental introduction of the schedule in Petrograd and Finland, for the first fifteen days of January. During the second half of the month, the schedule was extended to eight provinces supplied by the most congested lines, namely, the Nicholas and the Northern Railways. A different system was adopted for the provinces along the western front. In this section, the Special Administration of Front Zone Railways at the Headquarters of the Supreme Commander-in-Chief allotted, out of the total number of trucks transferred from the railways of the interior to those of the front, seventy trucks daily for the transport of foodstuffs during the month of January; these trucks were to be distributed by the local councils, with the coöperation of the representatives of the Ministry of Transport, the commissioners of the Chairman of the Special Council, and local public organizations.

*Rules of December 28, 1915.*

As regards the remaining sections of the country, the schedule plan was given up, and in its stead there was inaugurated a system of preferential transport of foodstuffs, in accordance with the ordinance of December 28, 1915. Permits for the preferential transport of such freight were issued upon the declarations of the local commissioners of the Chairman of the Special Council on Food



Supply, and this preference was granted hereafter under class *C* of the classification provided by the ordinance of July 27, 1915. The granting of still further priority, or of through-train transport, rested with the Directing Committee at Petrograd. The consignment was actually accepted when the consignor presented a certificate from the commissioner, issued within the limits of the preferential transport permits at the commissioner's disposal, and these permits were to be valid for a period of two weeks.

*The Permit System of Transport.*

It will thus be seen that no unified system of transport had been yet devised, and that for all foodstuffs for which preferential dispatch was claimed appropriate certificates from the food supply organs had to be produced. At the same time another very important matter demanded a solution: this was the question who was entitled to receive preferential consignments of foodstuffs. On the demand of the representatives of the Special Council, and notwithstanding a certain amount of opposition from the Ministry of Transport, a system was established, admitting of no exceptions, under which preferential food shipments could be consigned to none but the commissioners. We have already seen the importance attached to this provision from the standpoint of influencing prices. But apart from this the measure was also dictated by the very fact that there was a regulation of transport. As long as there was to be an apportionment of the minimum of trucks needed and the maximum of trucks available under existing transport possibilities, on the basis of the data furnished to the food supply organs, for the satisfaction of the current food requirements of a given area, it was absolutely indispensable that the food supply organs should be given the opportunity of exercising effective control over the receipt as well as the dispatch of goods carried within the limits of whatever quota of trucks might be provided in one way or another. The aggregate of all these measures gave rise to the so-called "permit system of transport" with which we are already familiar.<sup>2</sup> This

<sup>2</sup> This term usually covers two closely related, and yet different, matters. In the broader interpretation of the term, it signifies a system under which freight claiming preferential treatment, or even all kinds of freight within a certain class or category, is put on the rails only with the sanction of the respective government organs in charge of food supply. In its narrower mean-

meant that all preferential consignments of foodstuffs were subject to the control of the food supply organs, so that transport was nominally left at the disposal of these organs. This, however, did not solve, but only brought forward for the first time in a definite and acute form two other problems: the problem of the actual dispatch of freight offered for preferential transport, and the problem of the actual presentation for dispatch of that freight which was designated by the schedule. All subsequent transport policies consisted in some special method of dealing simultaneously with these two practical tasks, the successful discharge of which depended upon the efficient working of the transport and food supply organs. It was only natural that this whole business should take on the appearance of a perpetual struggle and long-drawn dispute between the two interested Departments. At the bottom of these differences were these two basic facts: (1) the extreme difficulty encountered by the transport authorities in establishing effective control, by a centralized system of regulation, over all railway consignments and reducing them to a definite schedule, and (2) the still greater difficulty experienced by the food supply authorities in obtaining effective control over all food resources and reducing these to a single plan of supply. The Ministry of Transport had to elaborate a freight schedule which would be in agreement with the supply schedule, and had to see to it that the freight was actually conveyed. The Department of Agriculture, again, had to draw up a supply schedule that would agree with the freight schedule, and it had to see to it that the freight should actually be offered for conveyance. Neither Department, however, was able to solve these problems in their entirety: the freight schedule was not fully executed because sufficient freight was not offered for transport; and that freight which was offered according to the schedule could not be transported because there was not enough rolling stock. Both evils gave rise to stubborn conflicts. Let us examine the respective measures separately, considering first the measures that were taken to move the freight actually offered for conveyance, that is, the organization of transport exclusively; and to this we shall add a few preliminary remarks on the organization of the supply schedule.

Broadly speaking, the system consisted in a definite scale of ing, the term is meant to contrast the permit system with schedule transport, implying extra-schedule preferential transport by special permission.

preferential transport, with the proper organs issuing the transport permits accordingly; and in the case of certain classes of freight, transport would be adjusted to certain areas of dispatch and destination (certain railway lines or sections), in other words, transport according to schedule was established. The latter circumstance, however, did not do away entirely with the necessity for certain qualifications also within this schedule arrangement, in terms of preferential freight, as there was no strictly unified plan of transport and it was necessary to ascertain the specific gravity, as it were, of the given schedule among the other transports, both schedule and non-schedule. We are already familiar with the system of preferential transport under the rules of July 27, 1915. This was somewhat altered, in the sense with which we are here concerned, in December, 1915 (ordinances of December 7 and 12). Scheduled consignments of foodstuffs were classified under subdivision *a* of class *D*; foodstuffs consigned to the provincial governors came under *b* of the same class; the remaining foodstuffs, consigned to certain qualified consignees, might be granted priority under subdivision *c* of this class. Thus it came about that some freights were given higher priority in the transport schedule than they had held under the regulations of July 27, 1915.

*Regulations of April 4, 1916.*

Further changes were introduced by the regulations of April 4, 1916, rendering the classification of preferential freights still more intricate. Above the preferential freights, a special category of "immediate" consignments was introduced which might be sent, by order of the Provisional Directing Committee, ahead of all ordinary freight, army freight included. Preferential consignments under class *A* were divided into five categories according to the order of their dispatch. Under *A1* were dispatched, together with army freights, those foodstuffs which were consigned to the granaries at the front independently of the schedules of the Directing Committee, in definite amounts prescribed by the same Committee. Those food and forage consignments which were dispatched to the granaries at the front in accordance with the schedules approved by this Committee, went forward under *A3*. Other food consignments according to the Committee schedules, that is to say, the schedules for the supply of the civilian population, went under *A4*. All consign-



ments on military freight orders under letter *N* by civilian institutions, that is to say, in particular, all "concentrating" consignments of foodstuffs within the areas of supply, were dispatched under *A5*, the last subdivision of class *A*. It will be seen, therefore, that the greater part of food consignments came under the highest classification of preferential freight.

*Intricate Classification of Preferential Freight of No  
Practical Advantage.*

It must be pointed out, however, that, as was to be expected and proved to be true in actual practice, such an extension of priority merely tended to nullify the practical value of the lower classifications of preferential transport. The only result of it was that, whereas heretofore the organizations concerned would fight to get their freight removed from a lower to a higher classification, now the lower classifications lost all practical significance; hereafter it was a question of getting freight transferred from a given subdivision of *A* to a higher subdivision of the same class. Very interesting and illuminating debates took place on this subject at the commissioners' convention at the end of August, 1916. As we have seen, the "concentrating" hauls in the areas of production were made on army freight orders under letter *N*, and obtained preferential rights under *A5*. The secretariat reported to the convention that such preference (under the highest letter and on an army freight document entitling to priority!) failed entirely in actual practice to secure priority and, in particular, did not afford any possibility of regulating grain delivery to the mills, with a view to the dispatch of flour to the front. The secretariat therefore recommended that the question be considered of establishing schedules also for non-military freight, to be granted preferential treatment under *A3*, and that extra-schedule non-military freight should be classified under *A4*. The representative of the Ministry of Transport at the commissioners' convention welcomed the application of a schedule system to non-military freight, but opposed strenuously its classification under *A3*, claiming that such an act would lead to a state of affairs under which "non-military freight will come to a complete standstill, because . . . we shall have to do away with all freight up to and including *A4*, which would be tantamount to stopping all schedule transport for the needs of the population."

The same convention deliberated on plans for the transport of foodstuffs in general. According to the data submitted by the secretariat, the average extent to which the transport schedule was carried out was only 43 to 45 per cent of the full quota, and according to the figures of the Ministry of Transport the cause of this poor result was the non-delivery of freight for actual conveyance. Still, the beneficial effect of the freight schedule was reckoned somewhat higher than might appear from this low average, as private food consignments not accounted for by the railways were being loaded in the place of these schedule deficits. At any rate, the convention considered schedule transport advantageous, and the commissioners went even so far as to declare that "without the maintenance of the freight schedule, they cannot guarantee the steady supply of the provinces with foodstuffs." The only thing they requested was some practical improvement in the working of the schedule. It could not be denied, indeed, that the schedule system of transport regulated and improved the carriage of goods to an enormous extent, putting the entire supply work upon a solid basis. Besides, it was important not alone for the reason that it actually increased the opportunities for sending goods, but also because it enabled the authorities to watch the actual execution of the plan and, by timely measures, to hold the supply at a level which permitted one or another section of the country to be saved from catastrophic food shortages. As for the grading of freights according to their relative "preferential" character, the feverish race continued as before. In this way the orders of August 20 and 22, 1916, raised to the A3 class of priority foodstuffs consigned to a certain mining region that was causing particular anxiety to the authorities.

#### *Regulation of Transport under the Provisional Government.*

The system of preferential shipment was given a new form after the March Revolution,<sup>3</sup> in connection with certain organization changes in the general regulation of transport. As has been stated

<sup>3</sup> A technical systematization of the schedule transport of food and fodder, providing for an inventory of available supplies and establishing the order in which the schedule should be executed for (a) freights to the front on military freight orders under letter N, (b) freights under the schedule of supply, and (c) grain shipped to the flour mills and consigned to the com-

already, previous to the Revolution the principal organ for the management of rail transport had been the Provisional Directing Committee, and under its rule centralization reached its highest point, greatly restricting the functions of the regional committees. On April 20, 1917, the Directing Committee was abolished and the regional committees, having been augmented by the inclusion of representatives of the food organizations, zemstvos, exchange committees, agricultural societies, and other public institutions, regained the dominant influence. The committees were now placed in a position in which they were able to dictate within their own territories: they prepared the freight schedules, issued the permits for individual consignments, and made provision for preferential transport. They could enter into mutual agreements regarding transport from other regions. For the coördination of the activities of the several regional committees, the Central Committee, slightly reconstructed as to membership and powers, was preserved.

*Rules of May 29, 1917.*

On July 1, 1917, new rules were introduced for the carriage of ordinary freight. They had been issued already on May 29, and formed a radical departure from existing rules in that they reduced all freights to a uniform classification. They did away with the special military freights hitherto set apart as a privileged group, of which no account had been kept and which rendered the effective regulation of freight movements more difficult. All *A* classifications were abolished and the particular importance of the army freight orders under letter *N* came to an end. All consignments were now divided into "special," "scheduled," "urgent," and "regular." *Special* freight was that which was required unexpectedly and could not be included in the schedule, or, if included, could not be dispatched according to schedule, when important reasons of State or public policy made it absolutely necessary to send this kind of freight ahead of any other. Transport of special freight throughout the railway system of the country could be authorized by the Chairman of the Central Committee, while within the boundaries of a certain region it could be authorized by the secretariat and the missionaries, was introduced by the regulations of February 28, 1917, issued by the Imperial Government literally on the very eve of the Revolution and published after the Revolution had actually begun.



chairman of the regional committee, a report thereon to be submitted later to Central or regional committee, as the case might be. A privilege enjoyed by this kind of freight was that it could be sent by a circuitous route if it should be impossible to convey it by the shortest route. *Scheduled* freight was made up of consignments of prime necessity for the proper supply of State and public needs. To this class belonged the most important consignments throughout the railway system, including most of the foodstuff freights. The schedules for each region were drawn up by the regional committee. *Urgent* freight was that wholesale transport which could not be included in the schedule, but had to be dispatched in urgent order, for State or public reasons, as well as that freight which was not classified as special or scheduled, but was carried under special regulations. A distinctive feature of urgent freight was that its transport might be authorized not only by the Central and regional committees, but likewise by the chief of the railway, within its own limits and for local hauls, subject to subsequent report to the chairman of the regional committee. For some urgent shipments consigned to definitely stated consignees, the Central Committee might grant periodical (so-called "automatic") preferential privileges, both as regards a certain region and the entire railway system of the country. A separate set of books was to be kept for urgent and scheduled freights. After the special freight, the scheduled was always to be loaded, and then followed the urgent freight. If it should be impossible to load all the scheduled freights at a station, a proportionate distribution was to be made, provided that there were no special instructions from the Central or regional committees for the preferential carriage of some special class of freight. All other kinds of freight were classified as *regular*, divided into four classes. In the general mass of freight they formed the exception, and their chances of conveyance were rather slight.

The regulations detailed above were the practical outcome of the teaching of the War. They were expected to assure a maximum of elasticity in the carriage of freight, through a consistent application of the principle of scheduled consignments and the permit system of transport. With regard to the practical utility of these regulations, as compared with those of the preceding period, it is impossible to state anything definite, in view of the fact that their application commenced only after the period of revolutionary disorganization had set in.

*Execution of Schedules.*

As stated before, regulation of freight movement by means of a schedule system implied the existence of the practical organization upon which this schedule might be based, that is, a schedule of supply. Wherever transport was in a favorable position and the freight schedule had its counterpart in a corresponding supply schedule actually observed, the freight schedule scheme worked successfully. Thus, in the case of army consignments, we are bound to admit that they were well carried out, as may be gathered from the table given below, showing freight movements from the introduction of the schedule, December, 1915, up to and including the month of June, 1916:

<i>Truckloads</i>	<i>December</i>	<i>January</i>	<i>February</i>	<i>March</i>	<i>April</i>	<i>May</i>	<i>June</i>
Scheduled	51,243	51,243	58,987	72,385	83,790	94,116	87,960
Dispatched	42,284	56,688	55,567	71,316	78,747	94,575	83,579
Daily average	1,364	1,829	1,916	2,300	2,540	3,047	2,786
Plus and minus	-8,959	+5,445	-3,420	-1,069	-5,043	+459	-4,381

These figures show a steady monthly growth in the delivery of military freights. The deficit in June falls mainly to the share of the southwestern front, owing to the unusual working conditions of the railways in that section as a result of our offensive.

The carriage of foodstuffs for the population was in a worse state, as will be seen from the following table showing schedule movements from January 1 to July 31, 1916:

<i>Month</i>	<i>Truckloads</i>		<i>Percentage</i>
	<i>Scheduled</i>	<i>Loaded</i>	
January	14,555	9,837	67.7
February	26,434	12,337	46.6
March	30,212	11,828	39.1
April	23,139	11,744	50.9
May	26,811	11,784	43.9
June	27,421	12,859	44.9
July	26,139	13,340	51.3
Total	174,711	83,729	48.1 <sup>4</sup>

<sup>4</sup> Both tables are taken from the article of I. D. Mikhailov printed in the publication of the Institute of Economic Research, *Narodnoe Khozyaistvo v 1916* (*National Economy in 1916*), Petrograd, 1920, IV, 15-16.

The main reason for the deficit, as we have already pointed out, was evidently the non-delivery of freight for loading. But in so categorical a form this statement would hardly be correct. For in those cases—for example, sugar—where non-delivery of freight for loading could happen only as a rare exception, relatively speaking, since the control of the commodity was in the hands of the various supply organs, there still was a considerable deficit in loadings following more or less the percentage shown in the preceding table. The trouble clearly could not be merely in the deficit of freight for loading, and we are forced to the conclusion that in the constant friction between the two departments concerned the guilt was on both sides. Practical steps to avert the possibility of such futile quarrels were taken only after the establishment of the Provisional Government, when agents of the Ministry of Agriculture were appointed to the railway administration, to act as the connecting links between the railways and the commissioners; after that, the telegrams notifying that transport orders had been carried out had to be signed by the chief of the given railway as well as by the commissioner of the Ministry of Agriculture, and such telegrams were taken to be final and subject to no further dispute or quarrel. But, while there can be no doubt that, in the case of non-military transport, execution of supply schedules offered no guarantee of a similar execution of freight schedules, there can be no doubt, either, that freight schedules would have remained a dead letter had there been no supply schedules. In this connection it is important again to stress the fact that the elaboration of a supply schedule, with the vast number of different measures that this implied, was dictated to a large extent by the technical conditions of the transport facilities.

### *The Supply Schedule.*

What, then, did the supply schedule represent? As may be learned from the preceding pages, it was not a scheme for the transport of freight on the basis of a survey of alimentary resources in the areas of production, and of food requirements in the areas of consumption. Rather was it such a control of food supplies as would assure the actual delivery of freight for dispatch, at places designated by the freight schedule and in amounts corresponding to this schedule. In the case of army supplies, such con-



trol had been practiced from the outset. The subordination of the business of supply to compulsory intervention by the Government in the wholesale trade throughout the nation was first realized in the case of sugar, and the freight schedule for this article came as the technical materialization of a supply schedule. In the case of salt, local surpluses of Donets and Crimean salt permitted the execution of the supply schedules without State control of all salt supplies. As for other products, and more particularly as regards the principal foodstuff—grain—the difficulty of exercising control over it on a nation-wide scale made it for a considerable time impossible to furnish the freight schedule with its counterpart, the supply schedule; the result of this was that the freight schedule was largely a matter of placing at the disposal of the individual commissioners a stated number of trucks on certain railway lines, and these trucks they either used or not, this depending upon the supplies actually prepared by themselves or such organizations and individuals as they might have recommended. The linking up of transport schedules with supply schedules in the case of grain went on gradually, and gained momentum in a measure as the grain trade was more and more drawn into the sphere of direct governmental supply operations. Finally, on May 16, 1917, after the publication of the decree of the Provisional Government placing all grain supplies at the disposal of the State, an order was issued that grain should be accepted for conveyance only when offered by the local food supply organs and consigned to similar organs or to army base magazines. This regulation was definitely formulated by the order of the Minister of Food Supply of July 25, 1917. An order of this nature implied, of course, that the whole supply of the empire was to be administered by the state supply organization.

## II. TRANSPORT BY WATER

### *Transport by Water Not Adaptable to Intricate Regulation.*

For technical reasons, transport by water could not be made subject to intricate regulation such as we have seen in the case of rail transport.<sup>5</sup> In particular, the permit system of transport could not be applied to shipment by water. In so far as the Government found

<sup>5</sup> There was also a Directing Committee on Navigation.

it at all advisable to intervene in the matter of the conveyance of foodstuffs by water, it had to act in a cruder and simpler fashion, that is, charter the river fleets and carry the products as government cargoes only. Operations of this nature were performed on a very extensive scale in the transport of grain and salt by the Department of Agriculture. This was done successfully in 1916, when about 70 million puds<sup>6</sup> of government food cargoes passed through the Volga and the Marinski Canal system. In particular, all supplies of Perm salt were transported as such government cargoes. Again, in 1917, more or less success attended the transport of Astrakhan salt by the Government. These shipments had been planned and prepared in advance.

In the case of grain shipments, however, the campaign turned out disappointingly, both on account of the lack of grain at the ports and because of the rapidly declining discipline aboard the vessels. We must emphasize the point that, while the government operation of shipping foodstuffs by water was successful on the whole, the same cannot be said of the utilization of the water routes to their maximum capacity as component parts of the general scheme of transport. An appreciable increase in freight rates for cargoes made transport by rail much cheaper. The necessity of concentrating at the ports large quantities of products and loading and shipping them quickly in the course of the navigation season were points of considerable disadvantage and great risk to the private shippers, for it made it necessary for them to disclose the stocks they had on hand. In addition to the risk involved—that of having all these stocks requisitioned at fixed prices—the mere fact that such large supplies were disclosed would exercise a moderating influence on the rising tendencies of prices. Lastly, the fleets were largely chartered by the Ministry of Agriculture, so that they could not be made available for private shipping. On the whole, owing to a combination of various circumstances and conditions, the possibilities of water transport, notwithstanding the extremely congested state of the railway routes, were never completely utilized.

An attempt to stimulate transport by water artificially was made by the Provisional Government. On April 14, 1917, it passed a law, and promulgated it by telegraph, providing that freight delivered for transport by rail only might be obligatorily conveyed by both

<sup>6</sup> One ton = 62 puds.

rail and water routes. The execution of this scheme was made incumbent on the chairmen of the regional committees and the local commissioners of water transport. The former were instructed at the same time to see to it that no freight which might go to its destination by water should be granted railway transport, and to direct all the freight possible by water, by utilizing vessels returning empty. However, while practical in itself, this measure could now, in circumstances of revolutionary chaos, render no substantial service, and, of course, it was powerless to provide cargoes in ports which had already become empty.

### III. HORSE TRANSPORT

#### *Decree of February 3, 1916.*

On February 3, 1916, there was promulgated, in amplification of the law of August 17, 1915, concerning the Special Councils, a decree authorizing the Chairmen of the Special Councils in case of necessity to requisition the services of the population for compulsory transport of goods by their own horses and wagons. This law was called into existence somewhat accidentally. In connection with a question raised by the Governor of Tula as to "compulsory service" in the matter of the transport of firewood, the Ministry of the Interior drafted and submitted to the Council of Ministers a bill authorizing the governors of provinces and cities to impress the inhabitants owning horses for the cartage of food and fuel. The Council of Ministers were of opinion that the imposition of so heavy an obligation upon the inhabitants demanded particular caution, and it was thought necessary to grant the right to impress men and horses for this service, not to the administrative authorities, but the Chairmen of the Special Councils. In this way it happened that the decree of February 3, 1916, adopted under Article 87 of the Fundamental Laws, was promulgated.

Under this law, the Chairman of the Special Council on Food Supply was authorized (1) to demand, in case of necessity, that the inhabitants should furnish horses and conveyances, and that they should work at the loading and unloading, for the purpose of this kind of transport, of food, forage, seeds, bags, and sacks consigned to satisfy government or public needs, and to requisition such con-



veyances in case of refusal to serve, and (2) to determine the limits, conditions, and procedure for the execution of the foregoing measures, and the rates of compensation for such conveyances and services.

*Order of May 3, 1916.*

As this law had not been passed at the request of any food commissioner, there was a question as to how far it was really dictated by actual necessity. Consequently a questionnaire was sent out to the commissioners, asking for their views on the need for the requisition of horse transport and on the method of its application. From the replies, not less than from the frequent absence of any reply, it had to be concluded that there was, on the whole, no real need for the decree of February 3. Only five commissioners declared themselves in its favor. Reluctant to allow the local authorities to apply it generally, the Special Council refrained from issuing any general rules or regulations in amplification of the law. Soon, however, many requests were being received for the introduction of the requisitioning of horse transport, with the result that the whole matter was reconsidered. Consequently, on May 3, 1916, the Minister of Agriculture issued, in amplification of the law of February 3, an order prescribing the conditions and methods of the actual application of the law. According to this order, it rested with the Chairman of the Special Council to decide, upon the recommendation of a commissioner following a discussion at the local councils, whether there was need of proclaiming a requisition of horse transport. The Chairman of the Special Council likewise confirmed the scale of payment for such service, to be based either on weight-mileage (*pud-verst*) or on daily wages, as well as the rates of pay for loading and unloading. Naturally, only that part of the population which possessed the requisite conveyances were liable to this service. The time limit for the carrying out of an order, the weight limit per conveyance under the daily pay system, and the distance beyond which local inhabitants could not be compelled to travel, were to be established by the boards of the district zemstvo, or municipality, or by those organs that happened to be acting in their place. Such organs were advised also to make proper allowance for night's lodging in the case of longer hauls. Demands for conveyances were to issue from government agents furnished with

the proper certificates by the commissioners, and such demands were to be presented by the agents themselves, and not by contractors, through the medium of the police authorities or a proper municipal or other board. The same agents would also settle the bills for such cartage. Requisitioning was to be resorted to only when it had been established, by a declaration duly drawn up jointly with the police or rural authorities, that it was found impossible to hire the requisite conveyances by voluntary agreement.

*The Problem of Horse Transport Requisition and the Commissioners' Convention of August, 1916.*

In the course of the few months following, the rates of compensation for the requisition of horse transport were published in twelve provinces and territories, and by the time that the convention of August, 1916, opened, twelve more provinces and territories had raised the question of the compensation for such services. The report of the secretariat on this matter was discussed at the convention, and the latter arrived at the conclusion that it would be necessary to establish certain general principles, in order to put an end to the confusion that prevailed in the methods of requisition and in the assessment of the rates of compensation. Thus, it was thought necessary that these rates should not be established by the zemstvo boards, but by the local councils of the commissioners, after consultation with the zemstvo boards, and that different principles should apply to the requisition of horse transport in the cities and in the country. It was further thought necessary to prescribe the rates of compensation for stated periods, with due regard to the season of the year and the harvest, and on a basis of weight-mileage and zones; for the cities, the rates were to be established on a basis of completed trips or weight-mileage, and payment for loading and unloading was to be made by the pud. As regards the establishment of the zone limits and the periods, it was deemed advisable to leave these matters to the decision of the local councils, after these had consulted the respective zemstvos or municipalities. Lastly, it was thought proper to harmonize the rates of compensation for compulsory conveyance of freight other than foodstuffs, and for non-compulsory cartage, with those rates which were established for the compulsory cartage of foodstuffs.

These regulations, under which the initiative in the requisitioning

of horse transport was left with the local authorities, were not consistently observed. Thus the order of September 21, 1916, issued jointly by the Ministry of the Interior and the Ministry of Agriculture, and addressed to all the provincial governors and commissioners, recommended that, in view of the urgent need of bringing the accumulated supplies to the stations, requisitions of horse transport should be organized throughout the country. On the twenty-sixth of the same month a similar telegraphic order, dealing with the possibilities of water carriage, was sent out to the commissioners, with instructions regarding horse cartage to the ports.

*Regulation of Horse Transport Requisition  
under Provisional Government.*

New regulations for the requisition of horse transport were issued under the Provisional Government, by the order of the Minister of Agriculture of April 17, 1917. Authority to demand of the population compliance with the requisition and service on the loading and unloading of goods was granted to the provincial food supply committees, which were to establish the rates of compensation, bringing them to the attention of the Minister of Agriculture and publishing them for the information of the public. The entire population, without exception, was liable to be mobilized for the work of carrying, loading, and unloading goods, in a certain order, beginning with those who should be found most capable economically. The length of time required for the execution of a given order, the minimum load of a vehicle at daily pay, the maximum distance from the place where the goods were stored,—all such matters were to be dealt with, if necessary, by the *volost* or regional committees, subject to confirmation by the provincial food supply committee. The demand for the execution of such orders must come from properly authorized agents of the food supply organs, and payment for work done must follow as soon as delivery has been made, and, so far as practicable, at the point where the freight was delivered.



## CHAPTER IV

### THE GRAIN MONOPOLY

#### *Influence of Flour Industry upon the Policy of Government Regulation.*

GOVERNMENT regulation in the domain of grain supply received its decisive impetus from the flour industry. This was due to the fact that the flour millers were suffering more than other industrialists from the difficulties experienced in the grain market, being the largest buyers of grain. The basic trouble was caused by the division of the market, with fixed prices for grain purchased for the Government, and competitive prices for the rest, which affected the millers most profoundly. The millers were able to buy their grain only at competitive prices, and, as private individuals, they were running the risk of failing to obtain the necessary amount of grain for their mills and of being compelled to dispose of their output at fixed prices to the government commissioners, notwithstanding that they themselves had had to purchase their grain at the higher prices prevailing in the open market.

Under such conditions the millers had to try to realize on the flour left at their disposal such competitive prices as would compensate them for the losses incurred through the surrender of the other flour at fixed prices to the commissioners. This alone was sufficient to disrupt normal economic processes, with the result that the moderate prices of flour for the army were obtained at the expense of the civilian population, which was forced to pay increasing prices. On the other hand, the millers, being at the same time large dealers in grain, often found themselves unable, for reasons already pointed out, to obtain sufficient grain for their business; they were then compelled to ask the commissioners to supply them with the commodity, and thereupon acted only as millers, carrying out orders of the commissioners, with grain furnished by the latter.

When we consider, along with these general facts of the grain market and the food situation of the country, the circumstance that the flour shortage in numerous places had made it urgently necessary to find means of obtaining the maximum of flour from the

mills; and if we add to this the fact that the flour industry, too, was handicapped by the inadequacy of transport facilities, fuel, labor, and metals, and that it had to appeal for help to the government supply organs, we shall see why a growing tendency manifested itself in the ranks of the Special Council to take measures with a view to the regulation of the flour industry. Accordingly, a survey of the industry was undertaken, directed to the fundamental problems of the normal as well as war-time production of the mills, and to the discovery of the causes of the difficulty that they were experiencing. On the basis of this survey, and of other data regarding the flour industry, a report was drawn up and submitted to the Special Council on June 1, 1916, dealing with the industry and recommending a number of measures designed to assure a sufficient supply of flour to the army and the rest of the population. The Special Council referred the matter to the Commission for Combating the High Cost of Living, which discussed it on June 4, 1916, and passed the following resolution:

(1) If fixed prices are to be established for flour, they should be extended to all business transacted by the commercial mills, and the buyers should appeal to the organs of the Special Council only in the event of their finding difficulty in purchasing at fixed prices; (2) the Government must create conditions which will assure the millers a sufficient supply of the grain they need, at fixed prices.<sup>1</sup>

These conditions may be reduced to a system under which the government flour organization would let the millers buy their grain at fixed prices, on a commission basis, which would render possible the utilization of the commercial machinery of the millers. At the same time there was to be organized under the jurisdiction of the Special Council on Food Supply a Central Flour Bureau, described in greater detail in Chapter I.

#### *Establishment of Central Flour Bureau.*

The Special Council, at its meeting of June 23, declared itself in favor of the resolution quoted above, and on June 30 an order of the Minister of Agriculture was issued dealing with the establishment of a Central Flour Bureau.

<sup>1</sup> Proceedings (*Zhurnal*) of the Commission for Combating the High Cost of Living, meeting of June 4, 1916, p. 7.

The creation of this Bureau was a most important phase of the regulation of the national economy as a whole, but more especially of the grain and flour business. Even before the question of fixed prices for all grain transactions had been definitely settled, the resolution regarding the Central Flour Bureau had strengthened the idea that all flour coming into the market should be sold at fixed prices. From this it followed inevitably that all the grain required by the mills should likewise be sold to the millers at fixed prices. When it is borne in mind that the millers were taking enormous amounts of grain from the market and that a considerable proportion of the grain was supplied by the commissioners, it will be evident that the grain market was, as a matter of fact, already losing that most essential feature of competitive trade—the free decision of the two parties to the bargain, so far as prices were concerned. It was this very point that the statutes of the Central Flour Bureau had in view when they provided that the millers, acting in the capacity of commission agents of the government commissioners, should be supplied with grain at fixed prices. These statutes were at the same time drawn up with the idea of avoiding earlier mistakes in the organization of supply, and of providing for the utilization of the machinery of private business after adapting it to serve the aims of the Government. The millers thus lost their essential characteristic of grain merchants, but, in order to supply their mills with sufficient grain to produce flour, they put to practical use their commercial organization, experience, and capital, receiving an extra commission for their work as collectors of the grain.

*Regulation of Flour Industry and Policy of Fixed Prices.*

This arrangement enabled the millers to act in a double capacity: they could either grind the grain furnished by the commissioner and be paid for thus executing a government order, or they could grind grain collected by their own efforts at fixed prices, in which case the price of the flour should compensate them, not only for the work of grinding, but likewise for the work of collecting the grain. On the whole, we may say that from the very moment when fixed prices were established for all flour put on the market, the further extension of fixed prices to the basic raw material—the grain—had become economically inevitable. Hence, in so far as the statutes of the Central Flour Bureau were preceded by the admission of the



principle of fixed prices for the entire output of the commercial mills, the problem of fixed prices for all grain transactions was prejudged; that is, the order of June 30 made it inevitably necessary to issue the order of September 9. And this, in the final analysis, meant that one of the last steps had been taken to bring the regulation of the grain market to its logical conclusion: the enforcement of fixed prices for grain and flour in all transactions, foreshadowing a transfer of all grain products from the control of their producers to that of the Government, to be distributed subsequently among the army and inhabitants.

This was the main significance of the order on the regulation of flour supplies for army and population. But the same object was also in view in the direct regulation of the flour industry itself, with the concomitant changes in the principles on which the fixed prices were calculated and in the elaboration of the plan to supply the population with flour.

#### *Standardization of Flour.*

Direct regulation of the flour industry formed one of the principal objects of the Central Flour Bureau. In this work, it was guided by the desire to run the mills in a way that would yield a maximum output with the greatest possible saving of expense, so that the flour could be reduced in price. At the very first meeting of the Central Flour Bureau, the necessity for introducing order and system into the grading of flour had become apparent. The highly developed flour industry of Russia was producing a bewildering variety of grades, especially in wheat flour. Not only were these different grades determined by locality and variety of grain, but even within the same region, working the same kind of grain, there were many different grades distinguished by numbers and labels, even at one and the same mill. This great variety corresponded to the diversity of the demand under normal conditions. But if fixed prices were to be established, a simpler grading of the flour would seem to be necessary, with a view to greater uniformity; a simplified grinding process would permit a larger output of medium grades and reduce the amount of the expensive grades, facilitating at the same time the government supervision of the flour mills.

No objection was raised to the proposal to produce standardized grades of flour throughout the country, but there were differences

of opinion as to the number of grades to be produced. The more radical elements insisted that there should be only one single grade, whereas the moderates were in favor of three grades of wheat flour to be ground uniformly throughout the empire. The problem was further complicated by three important considerations: the first technical, bearing on the question whether the mills could be easily adjusted to the changed working conditions; the second economic, relating to output and cost of production; the third alimentary in the strict sense, regarding the nutritive value of the flour to be produced. The Central Flour Bureau treated the question with much caution, and requested two other competent institutions to submit their views. The technical commission which was specially formed by the Central Flour Bureau looked into the matter, and it finally recommended that there should be produced three different varieties of a three-grade flour classification; nevertheless, it thought it preferable to require, before a decision, the opinion of the All-Russian Millers' Convention which was expected to meet within a short time. After obtaining the proposals of the technical commission and the report of the Millers' Convention, both of which agreed on essential points, the Central Flour Bureau decided, at its meeting of August 22, to prescribe for the commercial mills a total flour extraction of 72 to 74 per cent for wheat flour, to be divided into three grades, and of 72 per cent for rye flour, to be divided into two grades—"standard" and "sifted."

#### *Changed Economic and Legal Status of Flour Mills.*

With the settlement of this war-time production—which came at the same time that the newly prescribed fixed flour prices were published, September 19, 1916 (that is to say, only ten days after new fixed prices had been established for 1916 grain), the mills became government institutions. The miller lost his standing as a grain merchant, receiving hereafter his grain directly from the government commissioner or buying it at the latter's order, acting as his commission agent. In either case the miller's normal function of merchant and manufacturer went by the board, as grades and qualities of output were now prescribed in advance and there was no opportunity to make profits, since he had to dispose of the entire output at the fixed prices. This brought about a state of affairs in which the primary business of the miller was to get a government

order, which assured a certain amount of compensation for the grinding, and it was only in the second place that he was also interested in obtaining a commission for his work in collecting grain for the commissioner. Prevented from disposing at his own will of either grain or flour, and unable to make private use of transport, fuel, metals, and labor, the miller became a mere cog in the wheel of the state regulation of the grain market. This was made plain by the fact that the supply of the mills with grain as well as the distribution of the flour were incorporated in the government schedules of supply and transport. Between such a condition and one in which the Government alone disposes of the grain on a monopoly basis, there is no longer any difference in principle: a monopoly represents merely an increase in degree of already existing processes which, in principle, remain identical.

Since the mills had become in fact organs of government supply and had lost their normal character of private enterprises, their activities naturally had to come under the supervision of the supply administration. With this object in view, and as a preliminary to the regulation of the flour industry, the food supply authorities on July 7, 1916, began a census of commercial flour mills. After the creation of the Central Flour Bureau and the inclusion of the mills in the official supply schedules, the mills were obliged to render monthly accounts. At the same time the local agencies of the Central Flour Bureau—with rare exceptions they were the commissioners—were charged with the duty of establishing their control over the flour production at the mills. Further, the changed status of the mills, no longer functioning as private and independent concerns, was emphasized by the fact that they were prohibited from grinding farina, or “semolina” grits. For the needs of hospitals and similar institutions, however, the production of such grits was entrusted by the Central Flour Bureau to certain mills, and all demands for this article had to be addressed first to the Bureau. In the event of the mills infringing the prescribed procedure, the authorities had command of an effective economic penalty, brought to the attention of the commissioners by the circular telegram of the Chairman of the Special Council of October 29, 1916.<sup>2</sup> This was in addition to the general penalties for breach of the law.

<sup>2</sup> “According to information received by the secretariat, not all mills have changed over to the production of three grades of wheat flour. You are re-



*Fixing of Flour Prices and of Supply Schedule.*

Elsewhere in the present volume we have considered the effect of the extension of fixed prices to all grain and flour transactions, and of the State regulation of the flour industry. Here we shall merely stress the point that the flour prices were determined on the basis of maximum prices for grain and for the by-products of flour (bran, etc.), and upon definite compensation for grinding and commission. As for fixed flour prices in areas obtaining their flour supplies from other provinces, ("wholesale f.o.b. prices"), they were based upon the fixed prices existing in those provinces which, under the supply schedule, furnished flour to the area in question, plus actual freight and a certain sum for overhead charges. As regards the supply schedule, the Central Flour Bureau determined every month the amounts and sources of the grain to be sent to the mills of a given province; it also determined the amounts and destinations of the flour to be consigned every month by these mills. In other words, there was more or less of a tying-down of one province to another, to assure the mills of an adequate supply of grain and the populace of an adequate supply of flour, with regard at the same time to the needs of economy in transport.

*Attempt To Evade Logical Conclusions of Policy  
of State Regulation.*

By the autumn of 1916 the general trend of Russia's food policy appeared to have been determined definitely. Following the inexorable logic of war-time economy, the Government was screwing up ever tighter its control of grain; wiping out the distinction between the supply of the army and of the civilian population; sweeping aside all consideration for the producers; and sacrificing the interests of special classes and groups to the one supreme object of feeding the army and the nation. It was moving irresistibly toward a State grain monopoly, driven in this direction not only by the immanent forces of the economic process, but likewise by public

quested to take measures to assure the execution of order No. 52 and to compel the mills to change over during the process of their work to a production of the three grades. You have at your disposal an effective means of inducing the millers to make such a change: requisition of the older grades of flour at the prices fixed last year."

opinion, which was inclined to regard State regulation as the only effective means of averting a catastrophe. All the more interesting must appear the only bold, even perilous, attempt ever made to avoid this seemingly unavoidable course—an attempt which it is difficult to appraise properly since the Revolution prevented its practical realization. We refer to that method of purchase and supply which was designated as the “grain levy” (*razzverstka*) and is closely linked with the name of its initiator, M. Rittikh, the last Minister of Agriculture under the empire.

*The Grain Levy.*

The order of the Minister of Agriculture of November 29, 1916, by which this system was inaugurated, is known as an order “concerning the levying of grain and forage for needs connected with national defense.” This emphasis on the interests of national defense was not accidental: in a certain sense it was an attempt deliberately to ignore the bitter experience that had so far been gained, by which it had been made abundantly clear that all sharp distinctions between the army and the rest of the inhabitants in the matter of food supply must be done away with. On the contrary, this levy order suggests the thought that the sacrifices which it would impose upon grain holders were called for by the exigencies of the War, and, by its silence on the question of supplying the civilian population, it leaves it open to doubt whether the State was prepared also to give thought to the needs of that population. The order, in a way, shows a definite tendency on the part of the Ministry: it takes into account, as it were, the already manifest hostility of the peasantry toward the urban elements of the population, and it urges the peasantry to make sacrifices for the sake of the army, as an unquestionably deserving object, so to speak, while passing over in silence the supply of the city inhabitants, which would strike the rural elements as a matter of doubtful importance.

How, then, was it proposed by means of the levy to provide the army with cereals? Instead of attempting to withdraw the entire supply of these from the open market, as the commissioners were supposed to do, in theory, the levy confined itself to the attempt to prescribe a certain, definite quota of cereals to be taken from the producers for the requirements of national defense. The Chairman of the Special Council on Food Supply would have to allot its re-

spective quota to each province. This quota of the levy was to be determined on the basis of the harvest, the stocks in hand, and the consumption in each province; in other words, the quota was not to be levied at the expense of consumption and working requirements. Within the limits of the province, the levy was to be apportioned successively among the several districts, *volosts*, villages, and individual farmers.

We thus see the levy percolating down to the actual producer of the grain. The apportionment of the quotas among the several districts of the province is made by the provincial zemstvo board, with the indispensable participation of the commissioners of the Chairman of the Special Council and the Ministry of Agriculture. Within each district, the levy is apportioned by the district zemstvo board, and within the *volost* the quotas are apportioned by *volost* and village meetings. The Chairman of the Special Council prescribes the dates of the levy for each separate province and issues instructions regarding the dates for each separate district. For the *volost* levies, the dates are fixed by the district zemstvo board. The dates for the actual deliveries of the levied grain are prescribed for each province separately by the Chairman of the Special Council, "according to the requirements of national defense." Levies made by the provincial and district zemstvo boards must be reported at once to the Chairman of the Special Council and the provincial governors. Zemstvo boards as well as the *volost* and village authorities concerned are held accountable for the execution of the levy at the appointed time.

The new system did not necessarily exclude the continuance of that previously in force, under which the commissioners collected the grain. Should the commissioner see a possibility of collecting enough grain to complete whatever order may have been given him, by free purchasing operations, he need not resort to the levy; all he has then to do is to report to the Chairman of the Special Council that he has retained the older method, and has undertaken the execution of the order. But if the commissioner declares himself unable to collect the required supplies within the appointed period by levy or otherwise, or if he fails to execute the order in time, the Chairman of the Special Council takes the necessary measures on his own authority, provided that the army authorities do not in the meantime find it necessary to collect supplies they need by means of



requisition. This also implies two possible forms of punishment for non-fulfilment of such obligations; the undefined measures that may be taken by the Chairman of the Special Council, and the definite threat of military requisition.

From the main provisions of the levy order which we have just described, it will be seen that they make no mention of supplying the wants of the civilian population. And this silence, together with a ministerial order issued on December 2, declaring emphatically that commercial grain is exempt from the levy and to be bought in the ordinary manner, suggested the idea that the new policy involved a break with the past and was designed to leave the supply of the population in the hands of private business, after taking by compulsion whatever grain might be required for the army. Such an impression was strengthened, furthermore, by the fluctuations in the ostensibly fixed prices for grain under Rittikh's administration.

### *Fixed Prices Disregarded.*

We recall here that around the problem of fixed grain prices, as also around the question of extending them to all transactions, a spirited and stubborn contest was being waged, which, as has already been shown, resulted in a reduction of fixed prices for purchases by the commissioners—a reduction made by the Chairman of the Special Council on Food Supply at the instance of the Chairman of the Special Council on National Defense. Once the principle of stability and invariability had been adopted in the price policy, as regards grain purchases, it ought to have been adhered to consistently. For it was enough for the grain producers to be merely expecting—rightly or wrongly, it matters not which—an increase of the prevailing prices, to bring all sales at existing fixed prices to an inevitable standstill. Stability of the fixed prices was the prime requisite if grain was to be got at all under such a system.

Rittikh changed the existing system of fixed prices, but while actually introducing higher prices, he did not do so directly, but had recourse to roundabout methods. As in the case of the levy, where he did not state explicitly that only the army was to be supplied under the compulsory levy, the population being left to private commercial supply, so in the case of fixed prices, they were

actually raised while the previous level was nominally retained. The regulations of January 3, 1917, for the speeding up of grain deliveries, abolished, for all practical purposes, the existing system of fixed prices and violated the fundamental postulates of economics. Up to this point, the fixed prices had been f.o.b., as is usual in the grain business. This was in perfect agreement with the fundamental requirements of sound economics under the preceding system and had therefore caused no complaints. The regulations of January 3, however, while maintaining the existing fixed prices, provided for delivery at the producer's own place of storage, and this was tantamount, of course, to increasing the fixed price by the amount it would cost to bring the grain to the railway station or harbor. In addition to this, permission was now granted to erect, not farther than three miles from the railway station, receiving sheds, while cartage of the grain from these sheds to the station was to be paid for at double the rate of compensation for requisitioned conveyances, under the system of compulsory horse transport. Furthermore, a system of premiums, or bonuses, was provided, resulting in a further increase in prices. In the first place, the commissioners were authorized to pay an extra compensation of 5 copecks per pud for the work of collecting the grain that was due from *volosts* and villages, and from associations of farmers, in case of timely delivery. In the second place, the commissioners were authorized to spend an average of 30 copecks (but not more) per pud for the artificial drying of grain, if necessary. Lastly, where not less than 10 per cent of the quantity of grain demanded for the levy or special allotment was supplied in excess of the quantity demanded, a bonus of 10 copecks per pud might be paid for such additional grain.

The rise in the fixed prices for grain resulting from all these changes was bound also to increase the fixed prices for flour, as the grain prices formed the predominant element in the latter. But the determination of a fixed price for flour under these circumstances presented formidable difficulties, since there were now so many varying and indefinable elements entering into the grain prices. This impelled the Chairman of the Special Council to issue the order of January 6, sent out to his commissioners as a circular telegram, transferring to the local food supply organs his right to prescribe new fixed prices for flour, and furnishing them with general in-

structions for the proper calculation of these prices, recognizing that many of the elements entering into the composition of these prices must now elude strict determination and even prove purely conjectural.<sup>3</sup> Without control or approval by the central authorities, new fixed flour prices were introduced in the various localities, and the only assurance that these prices would agree with prices in adjoining localities, or provinces, lay in the recommendation to the commissioners to get into touch with each other for the purpose of harmonizing prices in areas embracing several provinces. The central authority confines itself to the mere publication of the prices fixed by the local conferences. This non-intervention of the central authority in the fixing of prices was also a new departure, as compared with the earlier procedure.

*Reasons Making Success of Levy Unlikely.*

Let us now turn to a closer examination of the levying system. First of all, we must emphasize the fact that there were certain features in the very principle upon which the new system was built which made it very unlikely that it would succeed. Thus, the vagueness and deliberate indefiniteness that characterized the language of the new decree were manifest to all. This tempted the grain producers to deliver as little as possible under the levy, for the system could not fail to keep alive the expectation that grain withheld from the levy might yet be sold in the free market, at better prices. Again, there was a tendency to delay as long as possible the actual delivery of the levied quotas, in the hope that the shortage of grain would compel the Government to grant further increases of price, as had happened in the very act of proclaiming the levy. As a mat-

<sup>3</sup> This is evident from the following passage in this telegraphic order: "Consider also, in the first place, the average cost of grain consignment from owners' storage places and from the concentration points to railway depots and ports, taking into account, wherever possible, the average distance of transportation by horse for levied grain; in the second place, the additional payment of 10 copecks per pud provided under Section 8 of Order No. 72, for grain delivered in excess of the amount required under the levy, assuming that the amount of grain received in excess of the amount required by the levy will be 10 per cent of the total levy; in the third place, the increased payment provided under Section 6 of Order No. 72, if artificial drying of the grain should be inevitable, at the rate of not more than 30 copecks per pud of dried grain."



ter of fact, the "Christmas vacation," during which the fixed prices were suspended for several weeks, to encourage the dispatch of supplies to market "for the holidays," at competitive market prices, proved that the hopes of the producers had not been altogether unfounded.

These inherent defects in the new system were aggravated by certain other faults that came to light in its practical application. The levy had been designed with a view to speedy and strict execution. The only guarantee of its success lay in the rapidity with which the whole operation would be performed. In his order of December 2, the Minister gave the following time limits for the execution of the levy: the provincial levies were to be made by December 8; district levies by the fourteenth; *volost* and private estate levies by the twentieth; village levies by the twenty-fourth; and levies at the individual farms were to be made by the thirty-first. The entire levy of the nation was to be delivered, according to the order of December 17, within a period of six months.

The mistakes and misunderstandings which, at best, are unavoidable in so vast an enterprise, were bound to be multiplied with so rapid an execution of the scheme. This left no opportunity to contest wrong figures and prove the need for their rectification. A further drawback was added, which proved fatal to the success of the whole scheme. The levy had been planned on lines which inevitably made it unpopular with the organs charged with its execution, as well as with the grain producers. Already before the introduction of the levy, the work of allotting quotas among the various commissioners had often resulted in sharp conflicts and heated arguments, which is not surprising when we consider that the commissioners, being local men, naturally tried to spare their own areas as much as possible from a ruinous extortion of grain. The conferences of commissioners were of the greatest importance for the reason that they made it possible, through mutual arrangements and compromises of one kind or another, to impose upon each commissioner the moral obligation to accept the allotment assigned to him, for the collection and delivery of grain. The levy broke with this useful tradition, being introduced by headquarters alone, without any participation by the local people, who found themselves ordered to assume serious obligations when their own opinions had not even been heard. Quota apportionment had been heretofore the affair of

the commissioners themselves; the levy was imposed by outsiders. Formerly, there was a moral obligation assumed more or less freely; now, there was only a peremptory order from above. Here was a profound difference in the system, and its reality became evident as soon as the levying operation commenced.

There were subjected to levy, altogether, 772.1 million puds of cereals,<sup>4</sup> which included:

	(millions of puds)
Rye	285
Wheat	189
Oats	150
Barley	120

*Failure of the Levy, and Its Effect on the Policy  
of State Regulation.*

Lack of confidence in the soundness of the scheme made itself felt already in the provincial centers. Thus, many provinces thought that the levy method should be rejected altogether, while others, accepting it, reduced the amounts of grain demanded by the Ministry. Of thirty provinces, nine decided to continue collecting their grain supply without a levy, which left to the share of the twenty-one provinces accepting the levy system a total of 506.5 million puds of grain to be collected. But their provincial conferences found it possible to levy only 89 per cent of this amount, that is to say, only 450.1 million puds, and the district conferences reduced this to 321.2 million puds, or, to 63 per cent of the quota prescribed by the Ministry. In other words, even before the levy had come down to the actual producer of the grain, it had shrunk to about two-thirds of the actual amount expected. As it got nearer to the producer, the levy melted away more and more, thus clearly demonstrating that this very perilous measure had only slight chances of success. And, as a matter of fact, when the final tabulations were made, it appeared that the *volost* conferences had accepted only 82 per cent of their share of the levy allotted by the districts, and the village meetings cut the figures down to 57 per cent of the district levy. Assuming these figures for *volosts* and villages to be a fair

<sup>4</sup> Let us note that, although it was emphasized constantly that the levy had in view only the interests of national defense, a figure was prescribed which was greatly in excess of the actual needs of the army.

index for the rest, and that the private farmers would have done their duty to the full, we are safe in concluding that only about 100 to 130 million puds of grain would probably have been obtained by the levy, that is, at most, 20 to 25 per cent of the amount prescribed by the Ministry.

We may, therefore, conclude that the levy was a failure. Still, in view of the complexity of the motives that inspired Rittikh in this measure, it is by no means impossible that he foresaw such a failure and was fully prepared to risk it, expecting in fact a much smaller amount of grain than his official levy prescribed, yet sufficient to keep the army supplied for some months to come. It is quite likely that he was informed of the immediate intentions of the High Command and that he planned the levy according to such purely military calculations, in the hope that a successful offensive by the army would hasten the moment of peace and thus rescue the economic fabric of the nation from the iron clutches of an intolerable government regulation. But this in itself only serves to emphasize again the speculative character of a food supply policy based upon a levy: this might have been a judicious, if hazardous, measure if the expected spring drive of the army had proved successful; but in the event of a merely partial success, or of complete failure, and, generally speaking, of too long a protraction of military operations, such a measure was bound to hasten the catastrophic collapse of the food supply of the population as well as the army.<sup>5</sup> Even a stringent government grain monopoly might fail to produce the expected results, inasmuch as the levy inspired the idea that the policy of the Government was rather changeable. This only tended still further to demoralize the producers and holders of the grain.

Today it is impossible to tell precisely in what way the Government might have overcome the difficulties of supply caused by the failure of the levy; still, there are abundant reasons for thinking that the Imperial Government would have reverted to the very same methods of regulation from which the levy was to be more or less of an emancipation. But in the levy itself we also find elements of such

<sup>5</sup> The hasty execution of this measure, which could not escape the notice of the general public, proved a cause of dangerous demoralization: people thought the War was going to end soon, and such an idea was calculated to paralyze the army and the population at large at the very moment when there was desperate need of an effort that might have to be sustained indefinitely.



regulation, and their mere quantitative extension led to a monopoly, as the last and most consistent step of the Government in the State regulation of food supplies.

*Measures of the Provisional Government  
prior to March 25, 1917.*

The revolutionary authority of the Provisional Government, however, which realized this final step of State regulation, differed from the historical authority of the Russian State precisely in the fact that all its measures bore the marks of their absolutely illusory character. Behind its formal statements of the new juridical principles there was none of that vital power which turns such principles into actually effective laws, so that they shall not remain hollow, meaningless phrases. This should constantly be borne in mind in studying the grain monopoly introduced by the Provisional Government under the law of March 25, 1917. We must however remember that several weeks elapsed between the outbreak of the Revolution and the promulgation of this decree. What, then, were the leading features of the grain supply policy during this interval? We may answer this question by stating emphatically that there was no consistency about the measures that were taken during this transitional period. It was characteristic of it that there should be three different kinds of authorities addressing themselves to the local supply authorities, each of them issuing different orders and instructions. As early as March 2, when the political situation was not yet clear and no real authority had established itself at the capital, the Provisional Food Supply Commission of the State Duma and of the Soviet of Workmen's and Soldiers' Deputies gave orders to the local supply organs of the country to requisition, while continuing the levy, commercial grain supplies from dealers, banks, and landowners with an acreage of not less than fifty deciatines.<sup>6</sup> On March 3, the Special Commissioner issued an order to go on vigorously with the procedure of supply. Finally, on March 9, the Minister of Agriculture of the Provisional Government prolonged the premium and bonus arrangement in payments for grain, introduced by Rittikh, until the commissioners could complete their allotted quotas. This inconsistency in the orders regarding food

<sup>6</sup> One deciatine = 2.7 acres.

supply is a very striking confirmation of the fact that the problem was acute during the first few weeks after the outbreak of the Revolution, and that the desire to obtain the necessary grain by any and all possible means outweighed all other considerations and motives. It would be a mistake to imagine that the proclamation of the State monopoly of grain on March 25, 1917, could have changed at one stroke the system of supply that prevailed before the Revolution. Even the Provisional Government, inexperienced as it was in matters of administration, understood fully that there was an immense distance between the mere proclamation and the actual realization of a grain monopoly.

*The Law of March 25, 1917.*

Let us turn now to a consideration of the provisions of the decree of March 25, and see what were the characteristic features of the grain supply organization during this period. The decree is known as one "concerning the transfer of grain to the control of the State, and concerning local food supply organs." We thus see the decree itself linking up the problem of the transfer of grain to the State with the problem of organizing the machinery of food supply, thus laying formal emphasis on the close connection between the two problems.

On examining this decree carefully, we observe that it has a hereditary connection with the measures which were taken by the Government to regulate the grain supply before the introduction of the levy, as well as with the levy itself. From the original measures were derived those sections of the new law which dealt with the fixed prices for grain and its manufactured products, the system of regulated purchase prices, and the State regulation of the industrial conversion of grain. The influence of the levy is to be seen in those portions of the law which determine the essence of the monopoly itself, which emphasize the fact that the State shall obtain control of all grain, with the exception of such as may be indispensable for direct and productive use on the spot. This was the very idea underlying the levy, except that it was expressed in a form of less quantitative stringency. Now the State was to take all the grain not immediately required for the satisfaction of the wants of the owner and having commercial value. The levy had been designed to find out how much of this free "commodity grain" could be delivered by

each province, district, *volost*, village, and producer; the new law was only concerned with the question of how much should be left to the owner, since all surpluses over and above these amounts were to be handed over to the State.

The law provided that all grain was to be held at the disposal of the Government, and that it could be appropriated only through the intervention of the State supply organs, save those amounts that were needed for the direct consumption and economic requirements of the owners. But the law recognized also that the mere proclamation of this principle would remain a dead letter so long as there was not an actual determination, in the case of each farm, of the precise amount of grain to be left to it and of the amount to be transferred to the State. The law likewise laid down general principles for the guidance of those organs that would have charge of the execution of the law, so that they could correctly decide the quantity of grain subject to State control. So long as this amount remained undefined, there was no actual application of the law—such is the implication of Paragraph 1 of the Supplement, which declares that the grain comes under government control “from the time the grain is brought to account.”

The share to be left to the owner was made up of the following three parts: (1) seed grain, (2) food for the owner, his family, and his assistants, and (3) fodder for the live stock. The local food supply organs determined how much grain should be exempt from requisition, but had to do so in accordance with the principles laid down in the law. Seed grain was allotted according to the average requirement per deciatine in each particular province and district, on the basis of figures furnished by the Central Statistical Committee, subject to revision in the light of *zemstvo* statistics. If a smaller area was sown than had originally been provided for, the owner was to restore the unused seed. For food,  $1\frac{1}{4}$  puds of grain were allowed per head per month, until the new harvest, and 10 *zolotnik*<sup>7</sup> of grits per head per day. Fodder quotas were as follows: for a draft horse, 8 Russian pounds<sup>8</sup> of oats or barley, or 10 Russian pounds of wheat per day, but for not more than 75 days; for full-grown horned cattle and hogs, 4 Russian pounds of grain per head per day, for a period of 60 days, and half this allowance for calves more than a

<sup>7</sup> One *zolotnik* = 0.15 ounce.

<sup>8</sup> One Russian pound = 0.9 lb.



year old. In addition to these quotas, there was to be "left to owners to meet all eventualities" 10 per cent of all their estimated needs.

All grain beyond these allowances was to be delivered to the local supply organs in the order and within the periods that the latter might prescribe, at new and increased fixed prices f.o.b. Should the owner be unable or unwilling to make f.o.b. delivery, it was to be effected at his expense, that is, the cost of delivery was to be deducted from the fixed price to be paid to him. The same method was to be followed in the case of unthreshed grain. Persons who refused to surrender their grain were to have it requisitioned under special instructions. Should grain be concealed and found, the State would take it over at half the ordinary price. Until delivery, the owner was bound to store the grain at his own risk and was held responsible for its safety. At the request of the local supply organ, every proprietor of grain must declare the amount and storage place of his grain, the number of persons fed at his establishment, the number of cattle, and the number of deciatines to be sown. These figures were to be verified by the local food supply committees.

The mortgaging of grain was prohibited, and persons and institutions who had accepted such mortgages, as well as those who stored mortgaged grain, were required to report to the local food supply organs any grain thus mortgaged and stored. In addition to the fixed prices which the Government was to pay for the grain, special prices were established in the consuming centers for the sale of the government grain. These special prices were determined by the local food supply organs on the basis of the fixed purchase prices, plus overhead charges, and were to be confirmed by the Ministry.

The law, however, did not prohibit the coöperation of private business organizations, and it made provision for enlisting the services of the coöperative societies, unofficial organizations, and private firms, on a commission basis. This shows that the past experience of the supply organization had been taken into account and that the framers of the law had made allowance for the fact that the Government's supply machinery was not fully prepared to cope at once with this exceedingly difficult and harassing problem. As for the way in which the private and public organizations were to assist the Government in this matter, it was to be determined in special instructions.

*Regulation of Grain Converting Industries.*

The Supplement to the Law of March 25, 1917, above described has, in turn, a number of annexes, dealing with fixed prices for grain in the areas of production and consumption, and laying down the principles of the regulation of the industrial conversion of the grain, of flour mills, and of the manufacture of grits and millet. Leaving the discussion of the fixed prices to the special chapters on prices, we shall here consider the problems of the regulation of the industrial conversion of grain. This regulation bears a direct relation to the preceding system of regulation in the same industries; it is also closely connected with a new, decisive factor in the movement of grain—the fact that it is the Government which now becomes the owner and master of all grain products. The effort to secure the greatest possible saving of grain resulted, as we have seen, in simplifying the product, a standardized flour of three grades to be ground throughout the empire. There was at last introduced a simple grading of flour, such as had as recently as the late autumn of 1916 seemed far too premature and radical a measure. The fact is that the Government was now even thinking of producing only a single grade of ordinary flour. It was not a question of maximum utilization of the mills, but rather of the maximum utilization of the grain, which was not sufficient to cover the current demands. The mills could easily deal with much more grain than they had at their disposal, and the result was that some of them were idle and others were running below capacity. It was quite natural, under these conditions, that there should be a desire to make the most of whatever grain supplies happened to be available, even if the flour had to be of a lower grade, that is, with a larger proportion of offal. But it was necessary to consider, not only the human food, but also the cattle food requirements, and this kind of grinding, incorporating the bran that ought to be used for cattle food, would only lead to an increased demand for fodder grains, when their scarcity was one of the dominating features of the whole national economy, and had been such from the first year of the War. Under these circumstances, while introducing simpler flour grades, the Government had also to take into account the forage requirements. This is why the law sanctions, in addition to simple grades of unsifted flour (wheat and rye), the grinding of sifted flour, with an extraction of 80 per

cent. A similar situation existed with regard to grits and millet, where it was provided that thereafter only the coarser varieties should be produced. Semolina required by hospitals and children was to be produced exclusively on the orders of the local food supply organs, and not more than 5 per cent of semolina was to be produced, the extraction of sifted flour being reduced at the same time to 72 per cent and the bran output being increased by 3 per cent.

The State grain monopoly meant, naturally, that flour and grits millers could obtain no grain for their needs except that furnished them by the Government, and this was expressed in those sections of the law which provided that the local supply organs should let the millers have grain against payment. Millers became nothing but converters of government grain, and they were to be paid for the various kinds of work performed by their mills on this grain in accordance with the rates of compensation prescribed by the law. The entire output of the mills—flour, grits, bran, etc.—was handed over to the Government exclusively. It was only natural, under these conditions, that the Government should consider it necessary to establish a very strict control over the whole process of grain conversion. For extra services rendered by the millers to the Government, beyond the conversion of the grain, they were paid an additional compensation, on the basis of existing rates. The cost of delivery of grain to the mills, and of the finished product from the mills to railway stations or ports, was payable by the Government, and, in case the millers undertook the carriage to these points, they were paid for these deliveries in accordance with the rates prescribed by the local supply organs. This method was followed also in respect of sacks furnished by the millers.

Since it is the Government alone which, under this system of grain monopoly and regulation, bears all the costs of collecting and converting the grain, the local food supply organs calculate the average selling price of the converted article f.o.b., on the basis of the fixed prices for grain, and for by-products, the cost of collection and organization, transport by rail, water, and horse, and cost of converting into the finished product. These prices are submitted to the Minister of Agriculture for approval, after due co-ordination with prices in other provinces. In provinces using flour from other provinces, the selling prices are fixed on the basis of the purchase prices in the producing localities, with an addition of 5



per cent for overhead charges and the cost of transport. These selling prices may be established either for the entire province or certain areas within the same, all depending upon the variations of freight or cargo rates. Lastly, these prices may be considerably modified if the areas of consumption happen themselves to be producing a considerable amount of flour.

But this system of price fixing could be applied only after the Government had taken actual possession of the grain. Until then, there had to remain in force, to all practical purposes, the system that was in operation prior to the Rittikh levy. As regards, especially, prices of grain products, they were restored as fixed f.o.b. prices for all transactions, but, of course, at higher rates, in accordance with the increased cost of their constituent elements—grain, millers' remuneration, and so forth.

*Food Supply Policy during the Period Preceding the Application of the Grain Monopoly.*

Such were the essential features of the decree of March 25, 1917. We know already that it amounted simply to a declaration of the future policy of the Government in the domain of food supply, a policy that was not realized in the course of the War nor during the existence of the Provisional Government. The law itself stated that the actual realization of the grain monopoly would be impossible so long as the grain had not been fully accounted for and the rates of consumption to be allowed to the owners had not been fixed. And this is why all later measures in this field were to be mere preparations for an actually effective control of grain by the State, a control which was destined to remain unrealized throughout the period under discussion.

Turning now to a closer examination of these measures, we have to stress the fact that the system at this period did not differ from that in existence previous to the Revolution, or, to put it more exactly, previous to the attempts of Rittikh to avoid State regulation. This condition of affairs, which was self-evident, was given its juridical formulation in the ordinance of the Minister of Agriculture of April 8, 1917, which declared plainly that, so long as the grain was not brought to account by the local supply organs, it should be bought as before, at fixed prices for all transactions, on pain of requisition.

*Measures To Obtain Control of the Grain.*

The principal measures of the Government with a view to realizing the grain monopoly were aimed at the establishment of local food supply organs that could reach the actual producers, at an inventory of available supplies, and at the determination of the producers' quotas. In addition to these measures, others were directed to the regulation of transport and the development of the necessary publicity. It may well be stated here, that not one of the principal measures of organization proved successful. There were many reasons for this failure, but it was primarily due to the irreparable damage done to the administrative machinery of the nation by the terrific strain of the Revolution. The absence of organized authority rendered the penetration of the Government's control to many millions of individual farms impossible.

This becomes clearly apparent when we survey the several measures of the Government, some of which have been discussed already in another connection, especially in the chapter devoted to the organs of supply.<sup>9</sup> On May 3, 1917, the Minister of Agriculture approved the "Instruction to the Provincial Food Supply Committees" to carry the grain monopoly decree into effect. This instruction, issued five weeks after the promulgation of the law itself, not only shows that nothing had been done during the intervening five weeks to bring the monopoly into actual operation, but that the Government was only contemplating as yet the preliminary steps to make the monopoly effective. The instruction requires that the provincial food supply committees shall at once take steps to familiarize the public as much as possible with the monopoly law and hasten the organization of district and other local supply committees; in other words, that they shall do the merely preliminary work in respect of a law issued over a month previously. Another step, bringing the practical execution of the decree somewhat nearer, is the preparation for an inventory of grain supplies available. Here, the instruction proposes to the provincial committees that they shall ascertain, through a proper classification of agricultural establishments and areas, the rations, or quotas, which are not to be surrendered to the State. The inventory of the grain is to begin as soon as the most important organization work is com-

<sup>9</sup> Chapter I.

pleted. The committees must also print the necessary number of blank forms for the census, according to the model accompanying the instruction, instruct the subordinate organs in the methods of the census, and see to it that the answers are received from the district committees not later than May 31.

Simultaneously with the census, the local supply committees are to commence the organization of collection, delivery, and distribution of the grain. It was obviously impossible to furnish complete returns, as demanded by the instruction, by May 31, even assuming that there was any possibility at all of taking a census of about 19 million farms for the purpose of depriving them of their grain supplies by force, amid circumstances of revolutionary agitation and chaos. The instruction was approved by the Minister on May 3, yet he expected the provincial committees to be in possession of full returns from the districts by the thirty-first of the same month! Within the brief period of four weeks the instruction was supposed to have reached all the provincial committees of the vast empire, these were to manage to acquaint the general public with the monopoly decree, set up the necessary food supply organs, have the census forms all printed and distributed, draft instructions for the guidance of the district and other committees, and attend to innumerable other matters. The as yet badly organized, or even unorganized, district and *volost* committees, still ignorant of the very passage of such a law, were to receive instructions from the provincial committees, to proceed accordingly with the taking of a census of the population and live stock, to determine the amount of grain to be requisitioned within their own territories, and even to contrive to establish the organization for the collection of such supplies. It would be difficult to conceive anything more absurd.

The Moscow Soviet of Workmen's and Soldiers' Deputies made an investigation to ascertain the results of the census. This inquiry brought out that, in the beginning of the summer, no census whatever had been taken in thirty-two out of the thirty-eight provinces that answered the Soviet questionnaire; that four provinces had done it in slipshod fashion, not to be relied on; and that only two provinces had furnished proper returns. But one need not necessarily be a pessimist to feel justified in entertaining de-



cided doubts as regards the reliability of the census even in these two provinces.

Apart from this normal method of census taking, the State Food Committee entrusted the same duty to special "commissaries" appointed and ordered to go to various sections of the country by the chairman of the said committee. Section 6 of the order in question reads that, in case a province has failed to take a grain census, "the commissary may issue an order to take a grain census and, in case of necessity, have such a census taken upon his own authority, for the purpose of requisitioning those grain supplies that have not been registered by the food supply committees and not acquired by them." The commissaries' organization might have proved valuable in case of inefficient or too selfish action on the part of a provincial committee; but in so far as the latter was unable to carry into effect the census operations, the commissary would inevitably also prove quite helpless, no matter how unlimited his authority might be—on paper.

*Failure of the Census and Impossibility of Transferring  
the Grain to State Control.*

Inasmuch as the census failed not only in the beginning of that summer, but throughout the period of the War, there was no practical possibility of executing the proclamation of the grain monopoly. As long as it could not be properly ascertained how much grain there was in each farm and how much should be left for its own requirements, it was obviously impossible to determine what share should go to the State, if the latter was to endeavor to carry out its own declared principles. But we may be permitted to doubt whether the Government would actually have obtained its grain even if the census had been a success. This, because a successful inventory of the grain on hand in each separate farm is by no means a guarantee of the successful extraction of any considerable amount of this grain by compulsion. For such doubts we have some cogent reasons.

Articles 8 and 21 of the decree provided that the concealment of grain and refusal to hand it over voluntarily should entail requisition, to be made on the basis of a special inspection. In fulfilment of these provisions of the law, there was actually issued the instruction for the compulsory appropriation of grain, sanctioned

by the Minister of Agriculture on May 3. But since no census worthy the name had ever been taken, the requisitioning clauses of the instruction could not be applied in fact. On the other hand, such a thing as refusal to give up grain at the fixed prices certainly occurred, and, if we may judge by the effects—the constant grain shortage for the army as well as the civilian population—this refusal was widespread and made it necessary, accordingly, to apply requisitioning on a vast scale. Besides this direct and positive evidence that requisition was nevertheless not resorted to, we have some indirect proofs. Previous to the Revolution, local requisitions could be made only with the approval of the Chairman of the Special Council in each separate instance; after the issue of the instruction, requisitions, which were rendered still more problematical because of the reduction of the fixed prices by 50 per cent, were to be made on the authority of the local organs themselves. The fact is that the actual application of requisitions was confined to very rare instances, while the refusal to surrender the required grain was widespread.

In addition to this direct evidence we have the fact that, toward the end of the summer, that is, shortly before it was overthrown, the Provisional Government resorted to steps of the same nature that had been adopted in the early days of its food supply policy. The order of August 20, 1917, insists upon exceptional measures, not stopping even at the use of armed force, and urges the commencement of wholesale requisitioning, starting with the large holders of grain and with villages close to the railways. Yet a week after this formidable-sounding order, another is issued, on August 27, which doubles the fixed prices and again offers inducements partly psychological, partly economic in character: "The Minister of Food Supply has the right to prescribe the dates for the obligatory delivery of grain, upon the expiration of which the grain that is subject to delivery, but has not been delivered, may be requisitioned, at 30 per cent below the established prices" (Article 7). And this, after a threat of armed force! As a matter of fact, this amounts to an admission of impotence and an attempt to placate the grain owners: prices are doubled, and, instead of requisition at a reduction of 50 per cent, we now have a reduction of 30 per cent, to be used only after the expiration of the dates prescribed anew (not for the first time!) by the Ministry.

However, the failure of the monopoly does not mean that certain measures had not been carried out which had been conceived as constituent elements in a unified system of government monopoly. Among such less essential, but still technically important, measures we may mention the adjustment of the transport system to the purposes of the monopoly. A telegraphic order of May 16, 1917, informed the provincial food supply committees that the administration of railways and water routes had ordered information to be given to the local supply organs concerning all consignments of grain, and that only grain sent by the local food supply organs to similar organs or army base magazines should be accepted for conveyance. In amplification of the same order, the Minister of Food Supply on July 25 issued an order prohibiting altogether the carriage of private grain by rail or water, inaugurating a uniform rule for the transport of such grain only by order of food supply organs and only when consigned to similar organs or army magazines. This control of transport by the State food supply organization might have been of far-reaching importance in establishing an effective monopoly, if the transport facilities had still been serving the interests of private consignors. But, as we have seen in Chapter III, the use of transport facilities had been rendered practically impossible for private consignors long before these orders were issued, so that all that the latter amounted to was a mere legalizing and defining of a state of affairs already in existence.

### *Regulation of Consumption of Grain Products.*

Among the basic measures bearing a logical relation to the monopoly law, we must dwell on the order to regulate the *consumption* of cereal products. As will be seen at greater length in the appropriate chapter, even before the act of March 25 was promulgated, the Minister of Agriculture, on March 7, 1917, had addressed an ordinance to the mayors of cities proposing that they should consider the advisability of prohibiting the baking of pastry. But in its general form, rationing of consumption was first inaugurated by the order of the Minister of Food Supply of June 26, 1917, which has a close connection with the sections of the grain monopoly law determining the rations of grain to be allotted to the producers for their own needs. This order allows the local supply organs a great



deal of freedom in the practical procedure of the rationing, confining itself to a mere laying down of the leading principles of such rationing. It distinguishes between maximum rations for the inhabitants of rural districts and for those of cities, or of areas of an urban character; the former were not to exceed the quotas provided by the grain monopoly decree, and the latter were to be limited to twenty-five Russian pounds of flour and three Russian pounds of grits a month a head. For those employed on heavy physical labor, an addition to the ration of 50 per cent was allowed.

Had the provision of such rations been regarded as the duty of the State, and the population as entitled to them, it would have represented an entirely new principle. But the order is careful to point out, in Article 9, that "the fixing of these rations does not constitute an obligation assumed by the supply organization to furnish to the consumer exactly this amount of the product." This being so, the order, together with the instruction for its execution and the model instruction for the organization of the ration card system, are not precisely component parts of a government monopoly, since they were to be applied in case of scarcity and had been actually applied in many localities previous to the Revolution.

*Practical Significance of the Law of March 25, 1917.*

Possibly the only field in which the monopoly decree was followed by any practical consequences was the industry engaged in the conversion of cereals. But here again, in reality, the extensive regulation to which this industry was subjected did not arise out of the application of the monopoly, but was due to the fact that the monopoly decree had created a situation in which the manufacturers, or millers, were legally able to obtain the grain they needed only from government supplies. This meant that the Government might furnish grain to such establishments as might seem best fitted for its purposes, and that it could prescribe such working conditions for these establishments as would tend to assure the most advantageous results. Supplementing the regulation of the flour industry provided under the rules of March 25, the order of the Minister of Food Supply issued on July 7 draws some further logical conclusions. Emphasizing the point that the mills can work only on government orders, it lays down those principles which will assure

that grain is milled with a maximum of economy for the Government. It prescribes that the selection of areas, localities, and even separate mills, shall be made in a manner that will save transport, fuel, labor, and the resources of the government supply organization, to the utmost. Schedules of supply should be planned in such a way as to avoid all duplication in the movements of the grain to the mills and of the finished product from the mills to the consumers. In accordance with these general principles, the central supply authorities are to determine the amount of grain to be milled in any particular area, and they shall demand of the local supply authorities the observance of these same principles when transferring the grain to the mills. To get the maximum benefit out of individual establishments, these should be made to work at full capacity, and to ensure such work, the mills in question should be contracted for at a definite rate per pud, or, in case voluntary agreements with the owners are not possible, such mills should be sequestered. Establishments that are chosen for this work are to be placed under the control of the State supply organization. This system of the so-called "selection" of mills was dictated exclusively by interests of State, and it was bound to lead to a situation in which part of the millers were made to suffer irreparable losses on account of the complete standstill of their establishments, while others were enabled to work at full capacity. To obtain a more equitable allotment of orders and distribution of benefits to the millers, the Government attempted to enforce a syndication of the flour industry, but met with the insuperable opposition of certain interested persons.

*The Grain Monopoly and the Food Policy of the  
Imperial Government.*

It will thus be seen that those elements of the State grain monopoly which it was found possible to bring into operation were, to all intents and purposes, directly connected with the preceding regulation of collection and supply. And, on the other hand, it will be seen that those elements which were especially characteristic of the monopoly, but unrelated to the preceding policy, failed. This confirms, in a certain sense, the fundamental correctness of the moderate and careful policy of collection and supply followed during the period prior to Rittikh's administration, and shows, more-

over, the impossibility of taking grain from the producers except by force, which might lead to actual bloodshed. From this the Provisional Government shrank, nor could it have used force even if it had so desired. The result was that the grain monopoly was destined to remain a dead letter, a mere proclamation.

The Bolsheviks, on the other hand, did not hesitate to follow the road of blood and iron, and if they won a partial success in the forcible requisitioning of grain supplies, it was due to the fact that they felt no compunction in provoking civil war between town and country.



## CHAPTER V

### FINANCIAL ORGANIZATION OF SUPPLY

#### *Original Method of Financing Government Purchases.*

So long as the purchases of the Ministry of Agriculture were either entirely or almost entirely for the army, the problem of financing these purchases presented no serious difficulties. Purchasing operations were carried on with funds especially appropriated for this purpose by the State Treasury, and received through the Army Supply Department. For the purchase of foodstuffs for the supply of the civilian population, funds were provided by the Treasury at the special request of each separate region, or else goods collected for the army were sold directly to the inhabitants, and the funds thus obtained used as working capital for further purchasing operations. By August 1, 1916, when the commissioners met in convention, the funds allotted for purchasing operations had reached the following figures: army purchases in 1914, about 350 million rubles; in 1915, 656 millions; in 1916, 50 millions. This, with some special appropriations, made a total of about 1,080 million rubles allotted by the Army Supply Department by August 1, 1916. In addition, about 64 million rubles had been received by the same date from various government departments and institutions for products sold to them (especially those sold in Petrograd, Finland, and to various zemstvos and municipalities). Altogether, the total receipts amounted to 1,143.5 million rubles.

#### *Attempt To Increase Working Capital by Loans.*

As purchasing operations on behalf of the population expanded, this method, which laid the full burden of the operations upon the State Treasury, became intolerable, and it was necessary to consider the question of increasing the working capital without any further direct demand upon the Treasury. The High Commissioner of Grain Purchases proposed that credits should be granted to the commissioners by the State Bank, which should discount bills drawn by the commissioners, and that such credits should be granted both by the local branches and granaries of the State

Bank. This proposal was favorably received by the Council of the State Bank, but it stipulated certain terms designed to safeguard the interests of the Bank and expressed itself at the same time as in favor of a legislative decision on the matter, so that the inauguration of the scheme had to be put off for some time.

When a special commission on finance was established under the Special Council, by the decree of October 10, 1916, the commission discussed the question of financing the purchasing operations, and the result of these deliberations was the adoption of the "leading principles governing the grant of credit to the High Commissioner of Grain, Sugar, and Salt Purchases by the State Bank, for the purpose of buying foodstuffs for the needs of the population."

These principles were substantially as follows: The Commissioner is financed by the State Bank, which opens a special current account secured by 5 per cent short-term Treasury bills; the credit is opened in the name of the Treasury Department, which grants the right to dispose of this credit to the High Commissioner; the extent of the credit shall not exceed 95 per cent of the nominal value of the bills; the period within which the credit may be utilized is limited to nine months; the rate of interest is determined by the Minister of Finance; the High Commissioner is at liberty to distribute the entire amount of the credit, or part of it, as he may see fit, among various branches of the Bank, and he may authorize his local commissioners to make use of the respective shares of the credit and to sign the checks; the local commissioners, in turn, may transfer these powers to others; the debt is to be redeemed at the place where the credit is used.

Having confirmed this decision of the commission on finance, the Chairman of the Special Council forwarded it to the Minister of Finance, with the request that he should take steps, if he approved, to have the State Bank supplied with 187,600,000 rubles' worth of short-term Treasury bills, to be used in financing the High Commissioner's operations. This was done by the Minister at the beginning of February, 1917. The amount represented one-half of the working capital which, according to the estimates of the finance commission, would be needed to finance grain purchases for the population. It was assumed that the remainder would be apportioned on a similar basis among the private banks that had

consented to a credit operation of this character, but the outbreak of the Revolution frustrated the plan.

The credit opened by the State Bank was intended only for the financing of grain purchases, but, once started, it was used also for purchases of sugar and salt. As a matter of fact, 60 million rubles of this sum were assigned to *Centrosakhar* (Sugar Center), to be used in payment for sugar received from the refineries, and nothing at all was used for grain purchases.

*Financial Plan of the Provisional Government.*

After the Revolution, when the grain monopoly was decreed and the work of the food supply organization had expanded enormously, the problem of financing the purchasing operations was to receive another solution: on May 19, 1917, the Provisional Government, acting upon decisions adopted at conferences of the finance commission, the State Food Committee, and the convention of commissioners, issued a decree which prescribed the conditions under which working capital should be furnished to the Ministry of Food Supply. According to the financial plan that forms the basis of this decree, the funds required for buying grain for the army and the population were to be raised by the State Bank and a consortium of private bankers, and these were to open current accounts in the name of the Minister of Food Supply, to be guaranteed by 5 per cent short-term Treasury bills. Amounts and terms, interest rates, apportionment of the total among the State Bank and the private banks, and other such matters were to be settled by agreement between the Ministries of Finance and of Food Supply, and the banks. This credit was to be allotted by the Minister of Food Supply to the provincial boards in the shape of special current accounts with the local branches of the State Bank or the private banking establishments, or of the State Treasury. The provincial boards, in turn, were to apportion, wherever necessary, the credits among the district, municipal, *volost*, and other local purchasing organizations. The liabilities were to be covered by the sums received in payment for the products furnished by the Ministry of Food Supply. If the liabilities should not be settled by the time the accounts were to be closed, the balance still due was to be settled at the charge of the State. As regards orders to be executed on behalf of the Army Supply Department, the Min-



istry of Food Supply was to inform the Treasury Department, and the latter was to make the required payments through the State Bank on account of the credits of the War Department. Settlement of bills for goods sold to other institutions or individuals was to be arranged directly by the Ministry of Food Supply or the food supply boards. Prices were to include, in addition to the fixed price itself, all overhead charges and administrative expenses of the Ministry and its local organs, together with interest due on the special current accounts. The method of calculating prices for each separate commodity was to be prescribed by a special instruction.

The financial plan here described was framed with a view to a wide enlistment of available funds in the purchasing operations, in order to avoid the necessity of issuing paper money for the purpose. But the magnitude of the sums required made this impossible. According to the estimate of the Ministry, the total cost of the contemplated purchases would reach 8,000 to 10,000 million rubles, of which amount grain purchases alone would require about 4,000 millions. Such sums no single bank, of course, was able to raise. It was therefore necessary, if the issue of paper currency was to be effectively curbed, to find a way by which the Government's purchasing operations should not entail too large a demand for currency of this kind. It was here, especially, that the problem arose of restoring the function of credit within the limits of a State monopoly of purchases.

#### *Credit Problems under the State Regulation of Supply.*

The whole credit question underwent an interesting evolution under the conditions of war-time regulation. In the early days of the Special Council, though there was such a thing as a credit problem, it was confined to a question of granting credits to the distributing agencies of the food supply organization. Whenever some center of consumption happened to suffer an acute shortage of supplies, the Ministry of Agriculture lent from its own stocks to the zemstvos, municipalities, coöperative societies, and other bodies. In addition to such supplies, the municipalities and zemstvos would receive from the Special Council monetary loans to finance their food purchases, or the loans made to them by private banking institutions might be guaranteed, under the rules

approved by the Council of Ministers on October 13, 1915. Under these rules, zemstvo and municipal institutions that found it impossible during the War to raise money for the purchase of food and fodder with a view to resale to the inhabitants of cities and towns, might request the State Treasury through the Special Council to guarantee loans by private banks; these loans would be made on notes issued by municipal or zemstvo boards for terms not exceeding nine months. Moreover, the Special Council might either itself grant a loan for this purpose or advance funds on account of the expected guaranteed loan. On such loans, 5 per cent interest was to be charged; the loans were to be repaid within six months after termination of the War; in any case, one-half of the loan must be redeemed within nine to twelve months after it had been received.

This arrangement was extensively used and was of material importance so long as there was a market in which the food organizations were able to find the products they needed. But with the concentration of all purchasing operations in the hands of the central organ of food supply and of its local branches, cash loans lost all meaning. For it was now a matter of transferring certain quantities of goods from the producing to the consuming areas and calculating the terms of payment. There was no longer any room for the auxiliary work of municipalities and zemstvos, to be merely assisted by government loans; we are dealing now with the financial organization of supply as a whole, in which the question of extending credit to the distributing agencies or organizations becomes solely a matter of the most convenient method of making payment for the commodities received by them for distribution.

#### *Credit to Producers.*

More complicated and interesting was the problem of financing the producers, which came to the fore when the Special Council took steps with a view to the intervention of the Government in the wholesale business. At first, it was a simple matter. The commissioners usually bought their supplies for cash, being interested solely in the finished article, and sometimes they paid a deposit, to make sure that they would receive the necessary supplies. But as the operations of the Government expanded more and more and the application of fixed prices became more general, there was a

radical change in the whole system. Once it was certain that the product must be handed over to the Government, the opportunities for private credit disappeared and every producer looked to the Government as the party for which he was producing his commodity. Here, again, there was neither the opportunity nor the necessity for making sure of the goods by a deposit. The only thing that might be considered under such conditions would be the payment of advances, the extension of credit to the producer. The mutual relations of producer and government under these conditions may be best seen in the case of the sugar industry.

### *Loans to Sugar Manufacturers.*

From the moment the sugar producers lost the right to dispose freely of their output, they found themselves cut off from their principal source of credit and working capital. They were obliged to keep the sugar at their refineries pending the receipt of orders from *Centrosakhar*, after which they were paid in cash against their bill of lading. It was natural, therefore, for the refineries to seek credit on the security of their goods from the State Bank; and, while the latter favored the idea, it was complicated by the proposal that sugar in transit, consigned to the commissioners, should also be accepted as security. To carry out such a plan, a rule would be required that sugar consigned to a definitely named consignee should not be delivered to him unless he presented the bill of lading, which would serve as security for the loan. The matter was submitted to the Special Council on Transport, but the latter declined to act, maintaining that it was a matter that should be settled by legislation. There was, therefore, a decision in favor of the grant of credits only as regards sugar in store, and it was passed in August, 1916, by the board of directors of the State Bank on the following basis.

Loans are granted on sugar (granulated and lump) in amounts not exceeding the actual needs of the factory for working capital, and not beyond 75 per cent of the fixed price value of the sugar (less unpaid taxes), for not more than three months, renewable for another three months, at 7 per cent interest. In making the loan, the Bank receives a written undertaking from the borrower to report the loan to *Centrosakhar*, to enable the latter to withhold the amount of the loan, together with interest and other items, from



the sums due to the refiner for his products. Before placing an order for sugar, *Centrosakhar* pays the Bank the amount required and the sugar held as a security is released.

This arrangement, however, offered no satisfactory solution of the problem of financing the sugar industry. In the same month of August, 1916, a conference of *Centrosakhar* emphasized the need of enabling sugar refiners to borrow money from private banks as well as from the State Bank, on the terms previously described. The conference also desired that *Centrosakhar* should undertake the guarantee of loans obtained by the sugar manufacturers. Since all accounts with the refineries were concentrated in the control of *Centrosakhar*, the procedure would be easy. All that would be required would be that *Centrosakhar*, in its capacity of exclusive paymaster to the refiners, should be empowered to issue, at the joint request of the refiner and the private bank, a certificate to the bank, stating that a certain portion of the payments due the refiner for his sugar would be paid by *Centrosakhar* to that bank to cover the loan granted by it to the refiner. Authority was granted accordingly to *Centrosakhar* by the Chairman of the Special Council, and it was also empowered to issue certificates showing payments of any other amounts due to the factory, in addition to those named above, with the exception of sums attached to meet the claims of the refiner's creditors.

*Loans to Producers under the Provisional Government.*

Under the Provisional Government the problem of financing the producers acquired a new importance. We have seen the enormous extension of the purchasing operations of the Government. Under the credit arrangement, it was impossible for the Government to obtain the funds required for these vast operations, even with a stabilized currency. To avoid an overissue of paper currency, it was necessary that credit should be restored in the very process of the circulation of the goods, so as to bring the moment of payment for the goods as close as possible to that of their actual receipt for distribution, preferably to have them coincide. It was no longer a question of assisting the producers, but of the very principle of financing the purchases. The problem of financing might be solved if it were possible to let the producer have payment certificates subject to discount and negotiable; in this case actual

payment would be made only after the consumer had paid for goods delivered to him. It would be to the producer's interest to obtain such a certificate as early as possible, regardless of whether the goods had already been delivered or not, since, with the Government as the only purchaser left, all commercial and merchandise credits were eliminated, so that the problem of finding sufficient working capital became very serious. In this sense these certificates were of great help to the refiners. But they proved even more of a relief to the State Treasury.

*Rules of June 17, 1917.*

The rules governing the issue of such certificates were laid down in the decree of the Provisional Government of June 17, 1917. These rules were, in the main, as follows: The Minister of Food Supply, and the food supply organs authorized by him, might issue to persons to whom money was due for work in connection with the operations of food supply, after they had made deliveries or otherwise complied with the obligations imposed upon them by the law, special certificates capable of being either ceded to other persons or given as security to persons or institutions that might finance their operations. To the State Bank and private banking concerns operating under government charters authority was granted, in spite of any charter provision to the contrary, to open credits and lend money on the security of these certificates. The transaction could be effected either through cession of the certificates by endorsement or by special deed. Every such transfer of certificates had to be reported not later than the day following to the food supply organization issuing the certificates, as well as to that making the payment. Banks granting loans or credits on the security of such certificates had the right to a preferential and direct satisfaction of their claims, within the limits of the credit or loan. All payments made had to be noted on the certificates.

The object of these certificates, as has been already stated, was to enable the holders to raise the necessary working capital for their business; but at the same time they also relieved the Government from the necessity of drawing money from the State Treasury for this purpose. This was clearly to be inferred from the regulations concerning advance payments on the grain crops, issued on June 24, 1917, where it was stated that "Advances shall

be paid only in case the owners of the crops are unable to obtain private credit, and in particular credit on the certificates issued by the food supply organization.”<sup>1</sup>

*Decree of June 29, 1917.*

This system of financing by anticipating—through the use of credit—the payments expected from the Government was more clearly expressed, in the case of the sugar monopoly, by the decree of the Provisional Government issued on June 29, on the financing of the sugar industry. The problem of furnishing working capital to the sugar industry, for the cultivation of the beet and the harvesting of the crop of 1917, was left to *Centrosakhar*, which was to resort to any one of the following methods of financing, according to the specific requirements of each case. Under the first of these methods, *Centrosakhar* might issue to the sugar producers the certificates provided for by the decree of June 17. In this case it was especially provided that persons or institutions opening credits to the producers on the security of these certificates should have their claims satisfied out of the proceeds of sales of sugar of the same year. Under the second method, *Centrosakhar* was authorized to guarantee loans granted to sugar producers for the purpose of planting beet in 1917, either by an ordinary or by a time-limited guarantee. Under the third method, *Centrosakhar* could lend money directly to owners or lessees of sugar refineries. But these loans would not be from the funds of the State Treasury, but short-term loans by the State Bank and private banking concerns, contracted by *Centrosakhar* either in the form of special current accounts secured by notes issued by the proprietors or lessees of the sugar refineries and the owners of the sugar plantations to *Centrosakhar* and furnished with its endorsements, or by the discount of such notes.

Amounts and terms of such credits, their apportionment among the State Bank and other financial institutions, rates of interest, and other terms and conditions of the use of the credits were to be settled by mutual agreement between the Ministers of Food Supply and Finance, on the one hand, and the interested banks, on the other. The debts incurred against these credits were to be covered by the sums retained by *Centrosakhar* from the amounts

<sup>1</sup> Decree of Provisional Government of June 17, 1917.



due to the refiners for goods consigned on *Centrosakhar's* orders. Should the debts not be settled, by the time the credit was closed, by the signers and endorsers of the notes, the outstanding debt was to be made good out of funds of the State Treasury. To safeguard the interests of the Government, *Centrosakhar* was entitled to attach immovable property belonging to refiners and planters. In claiming sums due to it on unpaid notes and guarantees, *Centrosakhar* had preferential rights over all other creditors to the property of the signers and endorsers of the notes. The terms of loans to be granted by *Centrosakhar* were to be determined by mutual agreement between the Ministers of Food Supply and Finance. In any case, the amount of the loans had to be in conformity with existing sugar prices. The officers of the revenue service were required to exercise supervision over the proper employment of the loans.

*General Character of the Financial Measures  
of the Provisional Government.*

The rules and regulations outlined above are of interest in that they were expected to relieve the Government of all expenditure up to the moment when payment would be received for the sugar which it took over for distribution among the consumers; that is, theoretically speaking, sugar for which payment could be obtained from the consumers in the shortest time possible. If these rules were applied, the sugar monopoly would involve the Government in expenditure only in respect of the *current consumption*, and not of the entire supply to be prepared. The further development of the system of payment by anticipation would then create conditions under which the mutual settlement among those engaged in the process of production in one way or another, by the discounting of temporary certificates, would finally assume the form of actual cash payment only at the moment when the consumer would pay for the goods. Under such conditions it might be possible, theoretically speaking, to conduct gigantic operations for supplying the nation with commodities without printing money. Without this final link in the chain, the whole system of financing would become ineffective, for, as has been said before, it would be impossible to provide out of credits the thousands of millions of rubles that would be required to pay for the purchases. As for printing cur-

rency notes for such a purpose, it would mean that the very foundations of the whole system were being undermined, since the stability of currency was assumed as this foundation. With the disastrous inflation of the currency, due to the unlimited output of the printing press, all attempts to find a foothold and support for the credit operations of the food supply organization were inevitably doomed to failure. The result was that this whole ingenious scheme remained on paper only, and the sole source of money for the food-purchasing operations remained, after all, the printing press.

But in spite of the fact that the whole gigantic supply organization created by the Provisional Government, intended to cover the whole supply of the nation, rested solely upon the issue of paper currency, which was steadily depreciating, the entire State supply business, as well as all economic transactions in general, continued on a cash basis. Competitive prices kept rising continuously, and the Government was forced to increase the fixed prices; but still, as a general rule, all business was done in the official currency. The idea of barter was slow in making headway, and the Government itself did not resort to this system at all. The Provisional Government was not in favor of bartering the enormous amounts of goods that had come into its possession for the food-stuffs it required for the army and the needy localities. Systematically extending government regulation further and further, it tried to supply the producer with all his necessities, and to take his food surplus from him. This was only a development of the plan that had already been adopted previous to the advent of the Provisional Government; but the latter did not always realize that it was now a question of turning the State into a unified, systematically managed economic whole, in other words, a question of a Socialist program. The various measures that had been applied to industry and converged upon a single focal point had turned the State, which had at first regulated only private business, into the employer producing all kinds of commodities and supplying what they needed to all persons engaged in this gigantic State-organized production. Under such conditions, there was no longer any room left for a financial problem, which now became a problem of the distribution of necessities among all those engaged at every stage of production and consumption.

## CHAPTER VI

### ORGANIZATION OF CONTROL OF FOOD RESOURCES AND DRAFTING OF FOOD SUPPLY SCHEDULE

#### *Need of Reliable Statistical Data and the First Inquiries into the Conditions of Food Supply.*

THE realization that the food supply of the army should be based upon a well-defined policy had been responsible for the creation of the Special Council on Food Supply. It also brought out the necessity of collecting reliable statistics on the food situation throughout the empire. At one of its first meetings, on September 5, 1915, the Special Council instructed the secretariat to organize special statistico-economic surveys. It appeared in the course of the work of the Council that it would require a great deal of statistical material, showing the population and live stock figures for the several administrative divisions of the country, the cultivated areas and stocks of the principal foodstuffs, the prices, requirements, and surpluses in each particular area. Approximate figures based upon calculations of averages of a remote period were useless; accurate data showing the *existing* conditions were now required.

Serving as the prototype for a series of subsequent surveys, the first took the form of questions addressed to the municipalities and zemstvos, concerning the state of their food supply on October 1, 1915. This questionnaire required information with regard to the population and changes caused in its distribution by the War; quotas, areas, and routes of the food supply, and stocks on hand; deficiency of commodities; causes of such shortage, and period when it began; movements of prices; and purchasing operations of the municipalities and zemstvos in articles of prime necessity. This inquiry was answered by a considerable number of municipalities and zemstvos. It thus became possible to make a careful summary of the mass of data supplied, to obtain a fair view of the food situation in large sections of the country, and to have some solid points on which to base the immediate plans for the supply of food to those provinces which were suffering from a shortage and required help from other sections of the country.



As an example of a somewhat different kind of statistical undertaking, we have the surveys of the amounts and routes of food consignments, necessary for the inauguration of the monthly freight schedules. In accordance with a decision of the Special Council and the desire of the Council of Ministers, the secretariat of the Special Council addressed about the middle of November, 1915, to the cities which acted as distribution points for products from other sections, a telegraphic request for information on their expected food traffic for December and January. The answers received were tabulated without delay and published in three volumes. In conformity with the decision to confine the schedule at first to twenty-two northern provinces, the first two volumes refer to these provinces, while the third deals with the rest.

About the middle of December, 1915, a second inquiry into consignments was made, to obtain data for February and March, 1916. This was addressed to all commissioners, municipalities, and zemstvos, and requested information, as regards the principal foodstuffs, concerning the amount of the scheduled consignments and the routes by which they were dispatched. The inquiries were addressed to these three different institutions for the purpose of gathering such complete information as was obtainable only by comparing the replies of the municipalities with those of the zemstvos and verifying them by the commissioners. These methods of statistical work adopted in the preparation of the railway schedules were used also with respect to water routes, in anticipation of the coming navigation season. As early as October 31, 1915, the Special Council instructed the secretariat to draw up a schedule of water transport, in order to relieve the railways as much as possible. On the model of the inquiries above referred to, questionnaires were sent out to commissioners in areas which were either receiving or sending food supplies by water. The commissioners in the receiving areas were requested to furnish information regarding the amount of freight they expected, the stations of loading, the stations of trans-shipment by rail and horse, and the final destinations. The commissioners in the dispatching areas, again, were asked for information concerning the quantities of foodstuffs stored at ports, loaded in the vessels for transport by first trip, and deliveries expected in the immediate future. In

this manner was gathered the information which formed the basis of the "water" schedule for the navigation season of 1916.

*Grain Surplus in Each Province Considered Separately.*

However, in order to make the supply schedules more or less stable, some other and more fundamental work had first to be done. It was essential to have the figures, requirements, and stocks for each separate province, taking into proper account its *general* economic condition. This work was accomplished by the secretariat. On the basis of statistics for the four-year period 1908–1911, regarding population, production, transport, and customs, the surplus was arrived at for each province separately. This enabled the authorities to determine the actual situation in each province, and to establish the proper per capita ration of consumption. In addition to this work, the mutual dependence of the several provinces was studied, that is, it was determined, on the basis of railway statistics for 1913, which stations in a given province received and dispatched foodstuffs (amounts and kinds being indicated) to the stations in each of the other provinces. As a result of all this work, there were now available really accurate figures on production, consumption, transport, and the routes in ordinary use for consignments from one province to another.

For the practical work of drawing up supply and freight schedules, these materials were to prove of vast importance, as they afforded a reliable picture of normal food movements in Russia, undisturbed by the conditions of war-time.

Connected with these surveys, in which use had been made also of the materials of the Central Statistical Committee showing the cultivated areas and grain crops, were two further investigations: into the production and consumption, and into the transport of the four principal kinds of grain. Methods were similar in both surveys, the only difference being that one furnished the averages for 1908–1911, while the other gave the facts for 1909–1913.

The results of all these inquiries were data, per head of population, on the average areas of cultivation, the crops, consumption, shortage or surplus, and shipments and receipts of the four principal kinds of grain for each province.

Similar provincial surveys were made for sugar and salt, as a really workable policy of supply in these articles could never be

arrived at except on the basis of accurate statistics. An inquiry was likewise made into the production, consumption, and transport of butter, when the problem of fats for the army became acute.

But in addition to these surveys of normal production and distribution of foodstuffs, figures had to be obtained respecting the present situation. Just as the inquiry among the municipalities had shown the current needs of the urban centers, so the inventory of commercial food supplies on January 15, 1916, was to show the stocks available for the immediate satisfaction of current requirements. It was proposed to make such inventories periodically, so as to keep account of changes in the stocks of supplies.

*Preparations for the All-Russian Agricultural Census.*

If we add to this that the food supply authorities were at work independently collecting information on the expected crops, it will exhaust the list of the most important statistical investigations undertaken during the first year of the food campaign. At the same time much important statistical work was planned for the future, which was to be both thoroughgoing and prompt. The *Outline (Obzor)* of the work of the Special Council for the first six months thus defines the scope of the proposed census:

Among the new surveys, first rank is accorded to the census of basic economic phenomena. The Special Council recognizes the necessity of such surveys, and it has instructed the secretariat to organize, with the aid of the zemstvos, of the local commissioners of the Chairman of the Special Council on Food Supply, of the local authorities, and of the veterinary officers, a census of live stock throughout the empire. The secretariat has already commenced the preparatory work of the cattle census. The problem of a census of the population, areas of cultivation, and stocks of food in possession of the inhabitants, has been submitted by the Special Council to its statistical sub-committee for preliminary examination. There can be no doubt that even after the completion of so important a task as a census of the population, live stock, areas of cultivation, and stocks on hand, the secretariat of the Special Council on Food Supply will be confronted with the necessity for a number of investigations into some very complex economic phenomena, a knowledge of which is indispensable to a proper direction of food supply policy, which cannot be kept separate from economic policy in general.



The actual facts fully supported the above statement in the *Outline*. The statistical investigation carried out by the food supply authorities surpassed anything that had ever been attempted in Russia along such lines.

*Organization of the Agricultural Census.*

We have seen that the *Outline* insisted upon a census of basic economic phenomena, without which the whole policy of the food supply would lack firm ground. To decide precisely which of these phenomena ought to be surveyed and how the census should be organized in a technical sense, the Special Council created a statistical commission.

After careful inquiry and study, the statistical commission, which included in its membership representatives of the statistical and economic sciences (among them Professor Struve and Professor Kaufmann), representatives of state, city, and zemstvo statistical departments, together with the representatives of the statistical division of the secretariat of the Special Council on Food Supply, decided upon the fundamental features of the census, both as regards its objects and methods, and drafted the most important forms, nine in number.

On April 3, 1916, the Minister of Agriculture issued an order for the commencement of the All-Russian Agricultural Census. According to this order, the census was to be taken throughout the empire, with the exception of Finland, and it was to be confined to the rural localities; it was to record the labor power of the farming population, the live stock, areas of cultivation, and stocks of the principal food and forage supplies, and it was to be carried out in conformity with a single program, or plan, which was obligatory for every section of the country. This order also prescribed the dates for starting and completing the enumeration, and the organization that was to undertake it. The enumeration was to be completed everywhere not later than July 15, and the food campaign of 1916-1917 was to be based upon the data furnished by it.

It is not our purpose to discuss here the problems connected with the practical execution of this gigantic task. Its magnitude will become obvious when we consider that there were enumerated 15,645,508 agricultural establishments (of which 15,535,351 were peasant farms), with an area of 71,709,693 deciatines under

crops, and scores of millions of heads of cattle (23,154,517 horses, 38,064,784 heads of large horned cattle, and 79,022,976 sheep, goats, and hogs). The tabulation and further elaboration of the data of the census went far beyond the immediate objects for which it was taken, and the result was that the census revealed every aspect of the agriculture of the empire. As for the importance of the census to the food supply, it is impossible to exaggerate it, since it enabled the Government, in the first place, to convince itself definitely of the inexhaustible productive resources of the nation.<sup>1</sup> Moreover, the accurate knowledge derived from the census of the places and methods of distribution of the basic food resources afforded an effective means of shaping the policy of the food supply at any particular moment.

#### *Census of the Flour Industry.*

The All-Russian Agricultural Census was undoubtedly the most important, but by no means the only, statistical investigation carried out by the food supply authorities. The further extension of the principle of State regulation of the national economy, going hand in hand with the difficulties experienced by the country under war conditions, made it necessary to extend statistical surveys to an ever increasing number of phenomena. The statistical investigations began with practical, concrete problems, and retained this character for a considerable time; but at last, there was an exhaustive survey, taking the form of a general census. When the measures for the regulation of the flour in-

<sup>1</sup> The following conclusion was arrived at by the author of the article entitled "Preliminary Results of the All-Russian Agricultural Census," appearing in the *Izvestia O sobago Soveshchanya*, No. 29, November, 1916, p. 59:

"The agricultural census has thus shown that the cultivated area in 1916 exceeds by about 50 per cent the area needed to satisfy the wants of the population of Russia. This proves that there are in the country considerable stocks of grain in excess of the amounts required for the supply of the army and the population. And as the years 1913, 1914, 1915, and 1916 were, on the whole, good harvest years, these reserve stocks were accumulated from the surpluses of several years. Russia thus has sufficient resources of grain to be able to look at the future with calm confidence. Russia's cereal wealth, under any condition, assures the food supply of the population for a long time to come and, in case of necessity, some of it may even be exported to friendly nations."

dustry were being proposed, attention was necessarily drawn to the practical obstacles that the industry had to contend with, and this it was that induced the central authorities to investigate the industry thoroughly. On March 27, 1916, a telegraphic questionnaire was sent to commissioners in nineteen provinces, where the flour industry was most developed. This inquiry was intended to elucidate the causes and extent of the difficulties which the mills had been experiencing in recent months, and which had stopped or reduced their work. In the case of those mills which were still at work, information was to be furnished regarding the supplies of grain on hand, stocks of fuel, the supplies of such articles to be obtained locally, the demand for them, the places where the grain and fuel which had been bought by the mills, but not yet delivered to them, were located, and the amounts of such supplies. The replies of the commissioners were received in the beginning of April, showing the actual state of affairs in the flour industry and preparing the way for those various measures which resulted in the establishment of the Central Flour Bureau.

The statistical survey of the flour industry was a direct duty of the Central Flour Bureau, as was expressly stated in the decree of June 30, 1916:

The Central Flour Bureau is charged with the duty of establishing a method whereby may be elucidated all the facts illustrating the situation of the flour industry, but in particular the supplies of grain, fuel, and sacks, the progress of production, and the grain, fuel, and sacks required.

Within one week after the promulgation of this decree, namely, on July 7, an order was issued that an All-Russian census of flour mills should be taken. The object of this census was to ascertain the "best means of provisioning the army and the population with flour, and the mills with grain and other necessary materials, and to obtain an exact and thorough elucidation of the state of the flour industry." The census was to be taken by means of questionnaires which were sent, together with proper instructions for answering them, by the local food supply organs to each separate mill. The forms were sent to all mills subject to the tax on commerce and industry and registered at the local Treasury boards. Answers must be obtained by all means from important



concerns, that is, mills included in the first six categories of the tax on commerce and industry; answers from the remaining two classes, while very desirable, were not considered indispensable. Filled-in questionnaires were to be returned to the local food supply organs within ten days of the receipt of the forms by the millers. The local organs were to arrange, wherever practicable, for the collection of the answers by special agents. In cases of doubt regarding the correctness of the information, the local organs were empowered to inspect the mills, examine their books and documents, check all supplies, and insist generally upon all the necessary information being furnished. Before sending out the questionnaires to the millers, the commissioners were to write to them, explaining the powers of the authorities and the duties of the millers, as regards the census; the text of these letters was to be drafted at headquarters and sent to the commissioners together with the questionnaires.

The questionnaires covered every important aspect of the industry. The text was prepared by the technical commission of the Central Flour Bureau and duly examined and discussed by the statistical commission of the Special Council. In order that the many different aspects of the flour business might be covered and careful consideration given to the various purposes which the data furnished by the census might serve, the coöperation was obtained, in the work of preparing the questionnaire, of specialists in flour grinding, persons generally competent in this industry, experts in the grain business, statisticians, and officials of the food supply department.

The replies came a little later than had at first been expected, but the delay was more than compensated by the quality as well as the quantity of the answers received. The data were further elaborated in accordance with the larger program, which permitted the authorities to obtain information not only on questions immediately concerning the food supply, but also on the main features of this industry.

#### *Current Records and Reports of the Flour Mills.*

The flour census was intended to furnish a view of the normal condition of the flour industry and to trace its changes during the period 1913-1916. But the increasingly strict regulation of the flour

supplies, the necessity of furnishing grain and fuel to the mills, the problems of production, distribution, and consumption, the rapidly changing conditions of the entire national economy—all these factors made it impossible to confine the statistical investigation to a mere tabulation of data of the census, valuable as that may have been in itself. It was now absolutely indispensable to maintain current records of the working of the flour industry, so as to have the opportunity of getting at any moment the latest and most reliable figures. It was with this object in view that the mills were ordered to furnish monthly reports, or accounts. At first, in October and November, 1916, these reports were communicated by telegraph, according to the short program; from December on, however, they were prepared according to a larger program, in the form of questionnaires sent out every month by the commissioners, to be filled in by the millers, and collected by the central organ for further elaboration. This monthly accounting system was established for mills of the first five categories in forty-two provinces. Out of a total of 2,879 mills of this class throughout the empire, the reports for the forty-two provinces just mentioned covered 2,460 mills, or 85.4 per cent of all the mills in these categories.

During the first two months, when answers came by wire, these reports were far from satisfactory. The questionnaire reports, on the other hand, fully realized the objects aimed at, furnishing a very clear view of the characteristic features of the flour industry in each separate province. Stocks of grain and supplies of flour, fuel, and other materials on hand; intensity of production and degrees of inactivity; localization of the difficulties experienced by the industry, and extent to which general economic conditions at any given moment were responsible for these difficulties; transport troubles, labor problems, impossibility of getting the necessary grain, fuel, etc.—all these matters were brought fully to light by the monthly reports and thus afforded a firm basis for the policy of State intervention and regulation.

#### *Some Local Statistical Investigations.*

It has been frequently pointed out in what precedes that all the statistical operations of the food supply authorities were necessary in order to meet the practical requirements of the whole supply policy, but especially because there was need of order and system

in the work of supplying foodstuffs. The whole of the statistical work was designed to help in drawing up a proper supply schedule. This idea underlying the work appears still more clearly in the activities of the local authorities. Long before headquarters had taken the nation-wide census and advocated the adoption of a single, national schedule of supply, similar ideas and operations had been carried into effect by local commissioners within their own jurisdictions: without this they would have been absolutely helpless in carrying out their tasks. When they undertook to execute the regulations of October 25, 1915, which required them to "determine the amount of foodstuffs indispensable for the supply of the local inhabitants," the commissioners at once realized the need of a more or less reliable schedule of the food supply, which meant that there was need of facts and figures that would enable them to get at any moment data as to the stocks of foodstuffs in hand. This naturally led to the organization of a number of statistical investigations carried out by the commissioners on their own initiative, the inevitable consequence of the practical task they found themselves confronted with.

A survey of the fundamental economic facts—population, live stock, cultivated area, receipts and dispatches of food supplies at the railway stations of the province, the areas that gravitate toward any particular station, requirements of the population, and other such matters—was made by the commissioners themselves in the following provinces: Chernigov, Kostroma, Simbirsk, Samara, Minsk, Moscow, Kiev, Orenburg, Vyatka, Saratov, Perm, Trans-Baikal, Trans-Caspia, and others. And prior to the order of the Chairman of the Special Council an inventory of supplies had been made by the commissioners on their own initiative in the following provinces: Saratov, Moscow, Penza, Ufa, Kazan, Novgorod, Samara, Ekaterinoslav, Vladimir, Simbirsk, Kostroma, Kherson, Astrakhan, Vyatka, Tula, Ural, Orenburg, Nizhni-Novgorod, Ryazan, Don Cossack Territory, Trans-Baikal, Vologda, and Smolensk. These instances, which were not the only ones, tend to show that the idea of a general food supply policy had suggested at the same time the advisability, or rather necessity, of a *schedule* of supply, and this naturally was unthinkable unless based upon the solid foundation of facts and reliable data. But while this was the attitude, more or less, of the local supply authorities, we do not see



it quite so clearly expressed in the activity of the central organs, owing to the peculiar features of the evolution of the latter.

*Supply Schedule for the Army.*

We have more than once emphasized in the course of the present work the various stages of development through which the policy of food supply passed, being confined at first to the army, extending later to certain specified categories of the civilian population, and finally including the army as well as the population of the whole empire. Systematic work on the part of the central supply authorities became apparent in the case of those categories which the Government considered it to be its duty to provision. As for the provisioning of the army, a regular schedule of supply was established from the very moment that the organization of grain purchases commenced. In this instance the supply schedule represented the material contents of the transport schedule, its substance, as it were. The schedule of railway transport was nothing more than an order, or orders, from the central authorities of the Department of Transport to have a certain number of trucks ready at certain stations and to transport goods to certain destinations within certain periods of time. This schedule was entirely unconcerned with the freight; in other words, it rested with the proper authorities, for whose convenience the freight schedule had been provided, to see to it that the freight was ready at the stations for the trucks to be furnished at specified dates. That means, of course, that the supply schedule had to come before the transport schedule, and, in a sense, it may be said that any transport schedule represents the final link in the chain of different measures that go to the making up of a supply schedule.

At first, as we know already, the food supply organs were concerned only with the provisioning of the army, so that there was only an army supply schedule in existence at this period; that is to say, it was determined which of the provincial commissioners were to collect the necessary provisions, and at what stations. This was also the substance of the term "army allotments" (*armeiski naryad*), which denoted an allotment, among the several provincial commissioners, of their respective shares of the foodstuffs required for the monthly provisioning of the army. According to the reports of these commissioners regarding the stations where such freight was

to be concentrated, and following the instructions of the military authorities respecting the destination points of such provisions, the monthly freight schedules were elaborated.

It was not long, however, before the planning of the supply schedules was greatly complicated by the necessity of provisioning, in addition to the army, certain specified categories of the civilian population. As has been made clear in the chapter on transport, the only help offered at first by the authorities in supplying the needs of the civilian inhabitants consisted in facilitating the transport of such provisions as had been prepared by civilian organizations. Thus, for instance, the assistance rendered in the supply of the two capitals and the northern provinces was confined to the grant of transport facilities. It meant simply that, in making out the freight schedule, a specified number of trucks were set aside for the transport of privately collected provisions from certain railway stations. No doubt the government supply authorities did not fail to come to the relief of localities suffering acute distress, by furnishing provisions from government stocks prepared for the army. Such supplies were frequently furnished, so that by May 17, 1916, assistance of this kind in grain products alone had reached a total of 42,940,000 puds (28,596,000 of flour, rye, and wheat, 1,886,000 of grits, and 12,458,000 of oats and barley). But this was not in the schedule.

*Supply Schedule for the Donets Mines, Certain Railways, and Establishments Working for National Defense.*

The first category of civilians to be provisioned according to the supply schedule and put in the same class as the army in this respect was the working population of the Donets mining region. The commissioners of the Chairman of the Special Council in the provinces of Ekaterinoslav, Kharkov, Kherson, Voronezh, Tauride, and the Don Cossack Territory reported not later than the tenth of each month to the High Commissioner for Army Grain Purchases the amount and kind of supplies required for the miners of that area, naming the stations of destination. The secretariat of the High Commissioner then issued orders to the grain commissioners to dispatch the required products to certain stations. First of all, it was ascertained what might be supplied from government stocks in any one of the above provinces, after which the balance was to be sup-

plied by commissioners in the nearest provinces. The provisioning of the miners was done according to schedule, it being determined every month how much of each particular commodity the purchasing commissioner would have to dispatch from this or that station (determined beforehand by himself) to the other commissioner, to a stated station. On the basis of this supply schedule the Ministry of Transport built up its freight schedule, except where consignments remained within the limits of a province, in which case they were attended to by the local authorities themselves.

The same method of treatment was applied to the provisioning of the workers on several important railway lines and on lines that were being constructed for strategical purposes. Thus, during the first year of the food campaign, 1915–1916, the supply schedule operated, as a rule, in the interest of the army, and only as an exception in the interest of a limited class of the civilian population, that is, workers employed in concerns of great importance to the cause of national defense.

#### *The General Supply Schedule.*

The reader is already aware that there was a change in the food supply policy in the autumn of 1916, when it was decided to deal with the needs of the civilian inhabitants as well as those of the army. We have seen that the same considerations that led to this extension of the State supply operations were instrumental in providing the method of supply, that is, a regular schedule. Ordinarily, when referring to the "supply schedule," this larger plan is meant, which includes the civilian with the military elements of the population. The question of a supply schedule was thoroughly gone into by the commissioners' convention held at Petrograd from August 25 to September 2, 1916. This convention was of vast importance in laying down the fundamental principles of the food supply policy to be followed. Urging the need of a more energetic intervention of the State in the supply of the civilian population, and declaring itself in favor of doing away with the dualism of fixed prices for army purchases and competitive prices for other purchases, the convention recommended the adoption of a regular food supply schedule. The Government replied that it could not possibly supply the whole population from government stocks, and that the Council of Ministers had resolved to supply only the re-



quirements of the Donets Basin and Finland, from the stocks of the Ministry of Agriculture; as for other sections of the empire, it was decided to furnish to the city of Petrograd 75 per cent of its needs, to the city of Moscow and the provinces of Olonets, Petrograd, and Vladimir, 50 per cent, and to the remaining food-importing provinces, 25 per cent of their requirements. All other supplies, in the view of the secretariat, would continue to be furnished by private business and unofficial organizations, under definite instructions from local and central food supply authorities. Many of the commissioners were in favor of drawing up a schedule covering a long period, but this proposal was rejected and the decision adopted to provide short-term schedules for a month or two ahead, since the situation at the front and the resultant economic conditions made it impracticable to plan for any great length of time in advance.

The practical working of the supply schedule was conceived in the following manner. Zemstvo and municipal organizations report one month in advance to the commissioner of the Chairman of the Special Council such requirements of foodstuffs as they think themselves unable to satisfy through their own agents and private traders. The commissioner, taking into due account the consumption of the locality concerned, forwards these reports, together with his own decision, either to the Central Flour Bureau, if standardized wheat flour is wanted, or to the office of the High Commissioner for Purchases, for all other commodities. Requests for grain products addressed to headquarters are distributed among the several purchasing commissioners according to surpluses available in the areas of supply. It will thus be seen that the purchasing commissioners had to deal with three kinds of orders: (1) army orders, representing a strictly defined quantity for each province; (2) orders for a specified section of the civilian population, likewise clearly defined; (3) orders for all the rest of the inhabitants, in amounts to be defined according to circumstances in each case. The needs of the first two categories had to be satisfied from the stocks at the disposal of the commissioner himself; the third category of supplies might also be furnished out of government stocks, but likewise by private dealers and unofficial organizations, which were made subject to the commissioner's orders in their purchasing operations. The decision whether the required products should be

supplied from his own stocks or by some unofficial organization rested with the commissioner.

This arrangement made it possible for the consuming provinces to tell precisely in which provinces they could obtain the foodstuffs they needed for their inhabitants. It enabled them also to proceed in the most efficient manner to procure their supplies; and it assured them of transport facilities, because freight schedules were drawn up in view of supply schedules.

The decision of the commissioners' convention was approved by the Special Council and confirmed by the Minister of Agriculture in two orders: (1) September 9, 1916, prescribing new fixed prices for grain of the 1916 harvest, and (2) September 19, 1916, prescribing the grades and fixed prices of flour. Finally, by the order of October 10, concerning the "method of supplying the army and the population with food and fodder, and concerning the central and local organs for the execution of the orders of the Chairman of the Special Council," the preceding two orders were combined into one, embracing now *all* kinds of foodstuffs dealt with by the food supply organization, and not only cereals.

#### *Flour Supply Schedule.*

It should be noted here that the supply schedules for cereals were drafted separately for flour and for other cereal products. In order to prepare the flour schedule, a circular telegram was dispatched on October 6, requesting precise information regarding the proposed output of flour for November in each separate province, the demand for flour within each province, the amount sold by the millers, the amount ordered for the army and the civilian population for the month of November, and the surplus remaining. This information made it possible to elaborate a practical supply schedule for flour, that is, to make arrangements for the delivery of flour from producing to consuming provinces. On the other hand, the flour industry was an essential element in the schedule for the supply of grain as well as flour to the needy provinces. And to secure the operation of the schedule, the mills had to be assured of an adequate supply of the raw material they needed. We have already seen what measures of organization had been taken to carry out this essential part of the food supply. To furnish a regular supply of grain to the mills, a thorough knowledge was required of the con-

ditions prevailing in the flour industry at any given moment. The further elaboration of the data of the flour census and the monthly reports from the mills made this possible. With an adequate knowledge of the distribution of the grain supplies, of the productive capacities and general condition of the flour industry in each separate province, of the grain and flour stocks at the mills, and of their further requirements in grain, it was now possible to regulate the supply of grain to the mills and of flour to the inhabitants on the basis of reliable data, thus guaranteeing the proper execution of one of the most essential functions of food supply.

*The Food Supply of the Railway Workers and Officials.*

Lastly, to complete the picture of the working of the supply schedule, we should remember that a special group was set apart from the rest of the population, to be provided for by special commissioners. This group was composed of the officials, mechanics, and all the other workers employed on the railways. An order issued on October 7, 1916, made it incumbent upon the administration of the government railways and of the private lines to see to the provisioning of these people, and they were granted the powers of commissioners of the Chairman of the Special Council. They were instructed to prepare a schedule of cereal supply for the lines under their jurisdiction, stating the number of employees, the annual food requirements, their monthly apportionment, and the kind of products needed, so as to make it possible to include their quotas in the general supply schedule. This setting apart of the railway employees as a special class was due to the vast importance of maintaining normal traffic, as well as to the peculiar conditions under which the railwaymen had to work. This did not, however, signify that they were to be allowed any privileges in respect of their supplies, as may be seen clearly from the circular order of the Chairman of the Special Conference of November 26, as follows:

I consider it necessary to point out that this will be merely a part of the general provincial schedule; and all steps taken by the food supply commissioners on the railways must be co-ordinated with the measures of the provincial commissioners of the Chairman of the Special Council on Food Supply.



The only object of this special railway supply schedule was to provision a class of people whom it was essential, from the standpoint of the State, to support. Supply according to such a schedule was put into effect after December, 1916. We shall not here consider the quantitative aspects of this schedule, nor the degree of its actual realization. These questions will be discussed in the chapter treating of the quantitative aspects of the supply organization.

*Supply Schedules during the Revolutionary Period.*

The Revolution and the measures subsequently taken in the domain of food supply might have greatly modified the established system of supply according to schedule, had the measures of the initial period of the Revolution been anything more than mere declarations of intention. The actual application of the principle of an absolute State monopoly of grain products should have made the grain supply schedule—as dealing with the principal staple food—the most important measure. This would have been the first time that the entire population, as well as the army, had been provisioned in accordance with a schedule of supply worked out by the Government in advance. Theoretically, the problem appeared simple enough: all grain was in the possession of the Government, which knew exactly how much of it was to be found in each separate province, knew the needs of the army and the population, and was thus able to establish firm connections between areas of surplus and deficiency, and to transfer supplies accordingly. It would be simply a matter of an order from headquarters to certain of its local organs to furnish a certain amount of supplies from the government stocks, and to certain other local organs to receive and distribute supplies thus provided among the consumers, military as well as civilian. With such a method, the pivot of all supply plans would be shifted to the final stage of their execution, that is, to freight schedules. Even if the required products should be scarce, the work of the supply schedule would not be greatly complicated thereby: there would be new problems of an equitable distribution of the available supplies, but the substance of the supply schedule would not be affected.

For some such system of food supply the Provisional Government was making preparations. Although no mention is made of any supply schedule in the decree on the grain monopoly, the in-

structions for the practical inauguration of the monopoly do point out the duties of the local food supply organs. Section 4 of this document provides that the provincial food supply committees shall elaborate the methods of supplying cereals to the population, so that this may be assured from the very moment that the cereals come under State control. In this, the provincial committees are to act in the interests of their own respective provinces. But at the same time, being the local organs of the central authority, their full coöperation is expected in the execution of the national supply schedule. This is why Section 11 of the instructions requires the committees to make plans for the storage of the grain at places of purchase, pending conveyance to destination, and to see to it that this grain is concentrated in such a manner, if possible, as to permit steady consignments according to schedule. The drafting of this schedule is left to the State Food Committee, according to Section 2 of its statutes. The execution of the schedule is made incumbent on the Ministry of Food Supply, through which "the measures of the Government in respect of food supply are to be carried out," and one of whose functions it is to have charge of "the collection of foodstuffs and their supply to the army and the population." The specific functions of the supply organization are entrusted to the Supply Section, which is in charge of the distribution of these products to the army, navy, and population at large. It ascertains the available stocks and draws up the schedules for the issue of grain and fodder to the army and population. Closely connected with the Supply Section are the Technical Section on Flour Mills, keeping records of the mills and their production and determining the grain requirements of the mills; the Economic Section, for the study of such problems of production, exchange of goods, and consumption, as may require special consideration with a view to efficient supply measures; and a Special Transport Division, to draw up transport schedules for foodstuffs and to see that supply schedules are in accordance with available transport facilities. The whole business of drawing up the supply schedules was practically the joint work of all these departments of the Ministry of Food Supply.

*Resolutions of the Commissioners' Convention, May, 1917.*

Such were the fundamental principles of the organization of the supply schedules after the Revolution. How relations were to be

established between the various sections of the country under these supply schedules, may be inferred from a resolution of the commissioners' convention held in May, 1917. A report on the relations between the producing and consuming regions submitted to the convention by the Ministry of Food Supply caused some heated discussion.

The resolution passed by the convention noted that the State monopoly was still very far from actual realization, and that the organization of food supply was not yet thoroughly established; and that this made direct coöperation between the provinces still necessary. At the same time a concession was made to the more radical faction, by the admission that the present arrangement was only of a temporary character, to end after the actual realization of the monopoly. This temporary arrangement for the food supply organization was as follows.

Dealings between producing and consuming provinces are limited to the execution of the orders, or allotments, in accordance with the supply schedule. Such allotments constitute an obligation laid by the State upon the supplying provinces, while a right is conferred on the consuming provinces to receive the allotments. But the supplying provinces cannot be forced to give more, and the receiving provinces cannot demand more, than these allotments. A consuming province is entitled to representation in the producing province, which supplies it with grain under the schedule, and if several provinces maintain their representation in a producing and supplying province, they shall be combined as a single representative body, or delegation. Such representatives have the right to attend the meetings of the provincial supply committees, with a consultative voice. Local supply organizations may invite such representatives to take part in their work; but independent action of these representatives, apart from orders of the local organizations, is strictly forbidden. Lastly—and this shows best of all the equality on which the supply of the army and the population was now founded—it was proclaimed, as a general principle, that the execution of the allotments was to be carried out proportionally for the army and the population, in regular rotation. It was however provided, probably because this would be likely to cause a disastrous food shortage in the army, that this principle should be



applied only so long as there were no contrary instructions from headquarters, as a result of exceptional circumstances.

This resolution of the convention was framed upon the assumption that all the grain was already under the absolute control of the Government. Had the proclamation of the monopoly been followed by the actual collection of the grain, we should have had to agree that there was consistency and practical value in these resolutions. Once all grain supplies were under State control, a single, national supply schedule would be the only logical method of provisioning. Free grain movements would then have to give way to rational distribution according to the deliberate plans of the Government. But how if State monopoly of grain is a failure, at the same time that the people depend exclusively upon the official supply schedule for their sustenance? What is to be done when the State, having as yet no actual control of the supplies, prevents the population from attempting to provision itself as best it can, paralyzes the machinery of private commerce, makes it impossible for unofficial organizations to collect foodstuffs, and closes all avenues of traffic to grain that does not belong to the State? It stands to reason that, in such conditions, the people are threatened with starvation, since the supply schedule is a mere paper scheme, while the Government prevents other agencies from supplying their needs.

If Russia did not suffer such a calamity to any large extent under the Provisional Government, it is to be ascribed to the fact that, like the grain monopoly, the supply schedule also was not strictly observed in practice; so that there existed, alongside of the legitimate but ineffectual, an illegitimate but effectual, method of supply. Later on, when the Soviet Government managed to tighten the screws of government supply, the urban population was saved from starvation under the "supply schedule" thanks to the irresistible self-help of the population, taking the form of "*meshóchnichestvo*," or, peddling of provisions.<sup>2</sup>

<sup>2</sup> The *meshóchnik* (from *meshók*—a bag, or sack), or "bagman," recruited from every stratum of the city population, would often travel hundreds of miles in search of commodities required either for the needs of his own family or for peddling to others, at prices justifying his efforts. To evade Soviet guards as much as possible, and also because of the difficulties of transportation, the "bagman" generally confined himself to a single bag that could be conveniently carried.

On the whole, we may, therefore, say that supply schedules intended to regulate supply relations between the various provinces of the empire, and to take the place of their normal, commercial traffic, were never carried into practical effect throughout the period of Russia's participation in the World War.

## CHAPTER VII

### ORGANIZATION OF STORAGE OF SUPPLIES

#### *Depots.*

THE task of collecting enormous and steadily increasing supplies of foodstuffs, but especially grain, which fell to the lot of the Ministry of Agriculture, made the problem of the storage of these supplies extremely serious. Already during the first year of operation, 50 per cent of all the railway warehouses were turned over to the Ministry. These, however, were found to be absolutely inadequate. It was, therefore, of material advantage to the work of the Ministry of Agriculture when it was given all the granaries of the State Bank for storage purposes. These granaries were well equipped, and had a staff of employees with considerable experience. But there were comparatively few such granaries, and these were located only in central and eastern Russia. It was necessary, therefore, to seek additional accommodation.

Every possible storage place was rented, especially the railway grain elevators. The spacious warehouses of the Nizhni-Novgorod Fair, too, were taken for this purpose. More space, however, was required. With appropriations from the War Department, mainly through the medium of the railway administrations, a whole network of storage depots was built within a very short time for the Ministry of Agriculture along the railway lines, mainly in regions with abundant grain supplies—the south, southeast, central Russia, and to some extent along the Urals and in Siberia.

The magnitude of this latter enterprise, as well as the vast scale of the entire government grain storage operation, may be seen from the following table showing the total storage capacity of the depots that were at the disposal of the commissioners at the height of the purchasing campaign, in the autumn of 1916:

	(thousands of puds)
Railway warehouses	62,026
Grain elevators of railways and certain other institutions	16,420
Granaries of the State Bank	19,880
Leased depots and others	60,787
Depots of Ministry of Agriculture	72,944
Total	232,057



It will be seen that storage depots specially built for the needs of the Ministry formed by far the largest item. And if we consider that in August, 1916, there were under construction additional depots with a storage capacity of 20,454,000 puds, which brought the total capacity of depots specially constructed for the purpose up to about 93 million puds, we shall see that nearly half of the total storage accommodation was created within this brief period by order of the Government.

### *Sacks.*

The collection of foodstuffs by the Government required an enormous quantity of packing materials,<sup>1</sup> especially sacks. Before the War, Russia had an annual production of about 100 million sacks of flax, jute, and various mixed fabrics. After the German occupation of the Warsaw area and the evacuation of the factories from the Baltic Provinces, the output was greatly reduced. Another cause of reduced production of provision sacking was the increased demand for sandbags at the front. And yet, while the crops of 1914 purchased by the Government required only 70 million sacks, the purchases in 1915 demanded more than 125 million sacks, and the collection of the 1916 crops not less than 236 million.

Part of the demand was satisfied by the domestic production in Russia itself. During the first year of operations, Russia produced 56 million sacks, during the second year, 67 million, and during the third, on account of the Revolution, the expected output of 70 million dropped to 47 million. The sacks were bought at fixed prices, which were prescribed from May, 1916, onward by the Committee on the Flax and Jute Industry attached to the Ministry of Commerce and Industry. The deficit had to be made up by foreign orders. Only English jute sacks, chiefly of Calcutta make, were purchased abroad. In the beginning, these purchases were made through middlemen, but later on directly from the British Government. In the course of the first year of operations there were imported 14 million sacks, in the second year up to 58 million, of which about 31 million came through middlemen, and about 25 million from the British Government direct, while some 300,000 sacks

<sup>1</sup> The official information on problems of packing has been brought together in the writings of M. Sushchinsky, in the periodical publications of the Food Supply Department.

were requisitioned at Vladivostok. These foreign sacks were received through the ports of Finland, Archangel, and, principally, Vladivostok.

The home-provided sacks cost during the period of 1915–1916 about 65 copecks apiece, and in rare instances, in cases of urgent need, prices would go as high as one ruble. English sacks bought through middlemen cost about 50 copecks, exclusive of customs duties, f.o.b. Vladivostok, or Archangel, while those purchased of the British Government direct came to about 36 copecks f.o.b. Vladivostok, at the rate of 15 rubles the pound sterling. Punctual deliveries were rendered exceedingly difficult by the congestion of the Archangel and Siberian railways. The collection of sacking for the 1916–1917 campaign was made still more difficult, apart from transport problems, by the increasing financial stringency. By the first of May it had been possible to import from abroad only 60 million sacks, which, with the domestic production, furnished but one half of all requirements. Special attention was, therefore, paid to the preservation of sacking for repeated use. By an agreement with the War Department, the armies at the front were ordered to be very careful of sacks and to send them back to the rear, and the soldiers were to receive bonuses at the rate of 10 to 20 copecks for every sack returned in fair condition. As for the sacks in which goods were furnished to the civilian population, a special deposit was required on them, to be refunded when the sacks were returned to the authorities. Lastly, to combat the attempts of private speculators to buy up sacks, the Minister of Food Supply on July 7, 1917, issued an order that the railway transport of sacks consigned by private persons or institutions was permissible only by authorization of the Ministry of Food Supply, the provincial food supply administrations, or their authorized representatives, and that breaches of this order would be treated as a criminal offense, while the sacks improperly presented for conveyance would be requisitioned. Another order of the same date directed the provincial food supply committees that they should (1) take stock of all provision sacks in private circulation and demand that their owners hand them over forthwith to the committees, at fixed prices, on pain of requisition, (2) organize the purchase of sacks from the local population and dispatch such sacks for sorting and mending to the existing warehouses and repair shops, (3) adopt all possible measures to

ensure the return of sacks from the consuming centers and the army, and see to it that such sacks were again made serviceable, and (4) report to the Ministry of Food Supply on all measures taken and on the number of sacks collected, both those in good condition and those in need of repair.

*Rush-Made Sacks and Mattings.*

Besides jute sacks, the Ministry of Agriculture required mattings for the packing of its supplies. There was need of rush-made sacks for oats and salt, and of matting to pack butter, frozen meat, and other such products. At first, these materials were purchased in the competitive, open market, but the steadily growing demand not only forced the prices increasingly high, but it also began to affect the quality of the goods, which were becoming lighter and lighter. The Union of Zemstvos, which had been furnishing matting to the Army Supply Department, delivered in 1915 only 3 million instead of the required 7 million pieces, and then ceased to make further deliveries.

The Ministry of Agriculture was now forced to take into its own hands all such purchases. On December 16, 1915, it prescribed fixed maximum prices for rushes and matting in the principal producing areas, and available stocks were requisitioned at these prices for immediate transfer to the Army Supply Department. At the same time the Ministry proceeded to organize the production of rush-made articles for its own needs. To combat speculation, it organized direct buying from producers and had rushes converted into matting and sacks. To do away with the harmful duality of prices (market prices being three to four times as high as the fixed), the Ministry of Agriculture on September 25, 1916, raised the fixed prices by 30 per cent, extending them at the same time to all transactions in such goods.

The third year of the policy of control proved entirely satisfactory. By June 1, 1917, there had been prepared 18 million pieces of matting and 4 million rush-made sacks, not including special sacks for salt, cucumbers, fish, etc. Not only were the requirements of the Army Supply Department and the Ministry of Agriculture now fully met, but considerable reserves were even accumulated. The success of this operation is the more interesting as it had been accomplished almost without any middlemen, by direct dealing with



cottage workers or their organizations—associations, coöperative societies, and *artels*. In June, 1917, at a special convention of the representatives of food supply committees from all areas where rush-made products were being obtained, the problem of the further organization of purchases of these articles was discussed. Notwithstanding the pretensions of the newly organized association of rush producers, the convention approved, as a general practice to be observed in the future, the existing methods of collection and purchase by the Ministry itself, in order to dispense so far as possible with all middlemen. Finally, on August 21, 1917, the Ministry of Food Supply issued an order establishing new fixed prices for rushes and mattings.

## CHAPTER VIII

### ASSISTANCE TO INDUSTRIES ANCILLARY TO FOOD SUPPLY AND TO AGRICULTURE

#### *The Sugar Industry.*

SUGAR was the first article of food in respect of which State regulation was realized on a large scale.<sup>1</sup> It was therefore only natural that the first branch of agricultural industry to which government assistance had to be rendered on a correspondingly comprehensive scale should be the sugar industry. At the center of this activity we find the Central Bureau for the Unification of Sugar Purchases in Kiev; under this bureau a special section of department was created, for the purpose of rendering assistance to the sugar industry. This assistance was extended in many directions, until it came to embrace every feature of the industry.

One of the chief difficulties against which the industry had to contend during the War was the shortage of labor. Ever since 1915 this shortage had been felt at every stage: there were not enough hands for the planting and cultivation of the beet, for the cartage and storing, or for work in the refineries. Nor were there enough trained specialists left, as they were only rarely successful in obtaining temporary exemption from military service. Especially hard hit were the factories in the immediate vicinity of the front, where the inhabitants, including even women and adolescents, were often impressed to dig trenches. *Centrosakhar* repeatedly petitioned the authorities to release women and adolescents from trench work, in those areas where sugar beet was cultivated, and such requests were frequently granted.

#### *The Labor Problem.*

In the 1916-1917 sugar season the labor problem was more acute than ever, and the beet harvest was in actual danger. Suffice it to say that by October 21, 1916, there had been carried to the refineries not more than 265 million puds of beets, leaving still in the fields over 300 million puds, as compared with 570 million carried

<sup>1</sup> The official materials on this subject have been summarized in the many writings of A. Isenberg, in *Narodnae Khozyaistvo v 1916 godu*.

and 200 million left in the fields on the same date in 1914. In spite of considerable increases of wages, the response of local labor was exceedingly slow, and, at the instance of the sugar manufacturers, the food supply organs of the Ministry of Agriculture made numerous attempts to induce the authorities to furnish the refineries with prisoners of war. Whereas 8,500 prisoners of war had been applied for in June to work in the factories, this number had increased to 30,000 in September, and the total labor shortage was already well over 60,000 hands. At the end of August, yielding to the persistent requests of the Ministry of Agriculture, the Council of Ministers decided to place at the disposal of *Centrosakhar* 15,000 prisoners of war. But as they had to be taken off other jobs in a large number of provinces, their actual transfer to the sugar industry was very slow, and the labor requirements still remained far from satisfied. A further demand for an additional 15,000 men was rejected by the Council of Ministers, so that the situation continued acute. Finally, in October, when vast quantities of beet were threatened with total loss, the War Department ordered out to the relief of the sugar industry the convalescent soldiers of the military districts of Moscow, Odessa, and Kiev. But on the other hand, in some of the provinces along the front something like 30 per cent of the total number of hands were taken off the fields, including sugar plantations, to work for national defense.

With the arrival of the late autumn, the last chance of saving the beet harvest had come. On renewed pressure from the Ministry of Agriculture, permission was granted to release from the concentration camp at Darnitsa, on the outskirts of Kiev, and place at the disposal of *Centrosakhar*, 35,000 prisoners. Already before this, permission had been given for the transfer of 7,500 war prisoners from the provinces of Volhynia and Tauride. The grand total of prisoners of war assigned to the sugar industry was above 62,000. Actually, however, only a small proportion managed to reach the plantations in time: by the end of October only about 20,000 men had arrived, and at the beginning of December there were not more than 24,000 prisoners at work in the sugar industry.

#### *Artificial Fertilizers and Bags.*

In addition to the labor shortage, the sugar industry was greatly handicapped during the 1916-1917 season by the scarcity of arti-



ficial fertilizers. Before the War, Russian agriculture took the entire home production of superphosphates (about 6 million puds), and imported from Germany up to 12 million puds annually. With the outbreak of the War the home output was greatly reduced and the German imports ceased. This scarcity of artificial fertilizers threatened to reduce the beet harvest by 30 per cent. The minimum requirement of the plantations for 1917 was estimated at 6 million puds of superphosphates and 5 million puds of "*Thomasschlack*" fertilizer, when, under the best conditions, the Russian works could produce only 3 million puds of each. The sole source of supply would be Japan, and orders were given accordingly. Purchases were begun at the end of the summer of 1916, and toward the close of September there had already been discharged at the port of Vladivostok over one million puds, and two million had been contracted for. Transport facilities, however, were not equal to the task of getting this quantity of fertilizers to European Russia as required. Thus, in October, permission was granted to load only six cars a day, and in November, after a brief interruption, only five cars might be loaded for shipment by the Trans-Siberian Railway; but this line was not in a condition to move even this quantity, and the Japanese fertilizers were doomed to remain at the port.

Not very much better was the fate of the sacks bought by the Ministry of Agriculture through the British Government. Of more than 12 million bags for the sugar industry lying at Vladivostok, only about one-third had been passed through to European Russia by October, 1916. Still, it furnished the sugar industry, after all, with 4 million bags; and, in addition to this, certain measures were taken to collect the used bags.<sup>2</sup>

### *Fuel.*

The most serious of all the problems that harassed the food supply authorities in Petrograd and the *Centrosakhar* was that of getting enough fuel to the refineries. The principal fuel used in this industry was Donets coal, allotted by the Special Council on Fuel in accordance with the importance of each particular requirement

<sup>2</sup> A better organization of the supply and storage of sugar bags, as a general measure, was recommended to the commissioners at their convention in August, 1916.

from the standpoint of national defense. After taking control of the sugar supply, the Special Council on Food Supply and its organs were faced with a heavy responsibility: on the one hand, they had to include the sugar industry in the scheme of distribution of Donets coal, since this was the obligation assumed by the Special Council toward establishments which gave their entire output at the officially fixed prices; on the other hand, they were bound to restrict the demands of the sugar industry for Donets coal to a minimum, since this was the duty of the Special Council toward the organs charged with fuel distribution. The magnitude of the task of verifying fuel requirements may be seen from the following figures: 191 refineries requested for 1916–1917 a total of 58 million puds of anthracite, as against 50 million puds for 1913–1914, and 36 million puds for 1915–1916. The enormous demand for Donets coal elsewhere, and the transport difficulties, could not but appreciably affect the coal supply of the sugar industry, and the latter was compelled to use, to the largest possible extent, wood fuel obtained locally or shipped by water from a distance. A drastic reduction of coal deliveries was made in respect of the factories producing lump sugar. After transport of coal to such works had been actually stopped and many of them had been forced to close down, the Special Council on Fuel was induced to permit the delivery of mineral fuel to establishments of this class to be resumed, but only to such as were working for the army. This question was discussed at the close of March by a conference of five Ministers, and they were compelled to agree to the cessation of the supply of lump sugar to the population. This sweeping decision could, of course, not be extended to the refineries turning out only granulated sugar, so that it was possible, even though with appreciable restrictions, to include the sugar industry in the general fuel supply schedule, without causing that industry too much damage.

The practical elaboration of a minimum fuel supply schedule for the sugar refineries was entrusted to the Fuel Commissioner at Kiev; he worked at this schedule in close coöperation with *Centrosakhar* and the All-Russian Sugar Manufacturers' Association. The schedule took as its basis the fuel consumption of 1915–1916, slightly increased. Besides the stocks on hand at the factories, the total fuel requirements for 1916–1917 were fixed at 24 million puds for the 191 establishments that had answered the questionnaires, for the period

from July 1 to the end of the season. This amount was to be uniformly loaded at the rate of 4 million puds a month. In view of the fact that not all refineries had answered the inquiry (there were altogether 240 refineries), and including the fuel requirements of the lump sugar plants that were still at work, the June quota was fixed at 7 million puds (6 million for the granulated sugar plants, and one million for lump sugar refineries). Monthly loadings were decided upon owing to the difficulty of transporting everything at once over the congested railways. Loadings started in July, although the actual use of the fuel would begin only in the autumn, after the beet was harvested and sugar extraction at the refinery had started. The supplies delivered during the summer months were to assure uninterrupted production during the refining season. Allowances were made for special cases requiring special consideration. Thus, refineries situated at a great distance from the stations were granted double allotments of fuel for July, in view of the difficulties involved in horse cartage. Increased allotments were also made to refineries near the Dnieper, so that they could utilize both rail and water transport, to relieve the congested railways as much as possible. Refineries which applied for comparatively small additions to their stocks of fuel received their full quotas at once and were then taken off the list.

### *Metals.*

Similar assistance had to be rendered by the food supply authorities to the sugar industry in obtaining the metals it required for the upkeep of the plants. At the outset the refineries themselves, procuring from *Centrosakhar* certificates showing that they were working for the needs of national defense, applied to the local factory boards for permission to acquire for themselves the necessary articles. Later, however, on the recommendation of the Chairman of the Special Council on Food Supply, from November, 1916, onward, the metal requirements of the sugar works were included in the national supply schedule of the Commissioner General of Metal Supply; under this arrangement, all the metal required by the sugar industry was to be handed over to the Ministry of Agriculture and the latter would then distribute it according to the needs of the industry.



*Beets.*

A special place belongs to the measures taken to secure the timely delivery of the beet to the refineries. Prior to the War, the beet used to be conveyed from the plantations to the refineries under special regulations issued for the purpose. The transport season was divided into two-week loading periods. Before each period, the refiners reported the number of trucks that they would need both for the period in question and the rest of the season, and rolling-stock would be sent accordingly. But this system of automatic compliance with all applications for rolling-stock, regardless of the geographical position of refineries and plantations, resulted in a great deal of cross traffic, which was highly wasteful, and such a situation could not be tolerated during the War, when the railways were seriously congested. It was therefore proposed to the sugar works that they should elaborate, under the supervision of *Centrosakhar*, a beet transport plan under which, by mutual arrangements or in some other way, the duplication of beet transport in opposite directions might be avoided. From this standpoint, the most practical solution would be to carry beet to those refineries which happened to be nearest the particular plantation, regardless of proprietorship. But on the other hand, it had to be considered that so drastic a measure was liable to have a fatal effect upon the further production of sugar beet, for it involved a very serious interference with the economic interests of the proprietors. This is why the Government, even during the season of 1916-17, when regulation of the sugar industry reached its highest point, shrank from direct regulation of the beet industry, and confined itself to indirect measures; that is, it simply withheld permission for the conveyance of beet in opposite directions, entailing a duplication of traffic, and thus stimulated mutual agreements among the consignors for an equitable and economical distribution of the beet.

*Aid to Other Industries.*

Similar measures for the relief of food supply industries were taken in certain other fields, especially the flour and salt industries, and the experience gained in the sugar industry was put to good use in regard to these. The August convention of commissioners tried also to solve in this way the fuel problems of the flour mills,

and as regards solid mineral fuel corresponding measures were inaugurated at the beginning of 1917.<sup>3</sup> The supply of all the mills of the country with solid Donets mineral fuel was concentrated in the hands of the Commissioner General of Donets Fuel. After March 1, all the grain-purchasing commissioners were required to furnish lists of mills, with statements of the fuel requirements for the month following of each mill separately, of the destination points, and of the mines at which the fuel was bought. Regional fuel commissioners had to verify the applications submitted by each mill, and all fuel had to be consigned to the commissioners of the Ministry of Agriculture. At the same time all direct applications for Donets fuel by the mills, as well as direct deliveries to the mills, were stopped.

*Assistance to Production Gradually Becomes Organization of Production.*

We shall not go into a detailed account of the relief measures taken in industries other than sugar. We shall only note here a characteristic tendency of all such measures to be transformed into measures of organization of production itself. In the case of the sugar industry, however, it was not so pronounced. No doubt, under the Provisional Government a purchasing organization of the producers themselves was created, and there was even some talk of forcing the whole industry to form a syndicate, but this was already toward the end, when the War was about to be submerged by the Revolution. The sugar manufacturers remained the only organizers of their production, and to their own initiative was left also the supply of their essential raw material—the sugar beet. And thus, while receiving government assistance, the industry continued on the basis of private enterprise.

In the flour industry, however, we find a different situation. Like the sugar industry, it was receiving government assistance; but this assistance had assumed, even before the March Revolution, a form

<sup>3</sup> The convention resolved that it was "desirable, in supplying mills with solid and liquid fuel, to employ the methods used in supplying sugar refineries, that is, to place the mills in a special category, so that their fuel requirements, verified by the proper organs of the Special Councils on Food and on Fuel Supply, could be satisfied by special monthly advance allotments covering the whole empire, to be distributed among the mills by the organs of the Special Council on Fuel, in agreement with those of the Special Council on Food Supply."

unknown to the sugar business, and it made the position of the millers entirely different in principle. For the mills were to receive assistance in the supply not only of fuel and labor, as in the sugar industry, but also of grain. In these circumstances the miller naturally was reduced to the position of a government agent converting government grain by order of the Government. This part was formally assumed by the millers under the government monopoly of the grain trade. We have described this process in detail, in Chapter IV, Part I. We desire to point out here that under such conditions mere relief measures necessarily tended to become measures of supply of all the articles required for production, that is, a government organization of production, aiming at extreme caution in the use of the means of production and distribution throughout the country.

This change to an all-round government regulation of the flour industry was due, to a large extent, to the desire of "obtaining the greatest possible economy in transport, fuel, and labor," announced at the meeting of the State Food Committee in June, 1917. To give some idea of the thoroughness of this organization, we shall here enumerate the attributes which the State Food Supply Committee took for its criteria in selecting the proper mills: (1) convenient situation of mills (proximity to railway stations or harbors, centers of consumption or areas of supply, etc.); (2) economical motive power (water to be preferred to steam, mills using local fuel to be preferred to those using fuel brought from a distance); (3) superior equipment (larger production with smaller expenditure of fuel and labor); and (4) size of mills (the larger mills to be selected in order to reduce the number of establishments and facilitate the entire organization of the work). These basic principles, differently formulated, were incorporated in the order of the Ministry of Food Supply issued on July 7, 1917, regulating the conversion of government grain. In this instance, the assistance given by the State was bought by the industry at a very high price, namely, the elimination of all private enterprise and the risk of being permanently subjected to the control of the State.

#### *Assistance to the Peasantry.*

In taking the products of the manufacturing industry at fixed prices, the Government made itself liable to help the industry to find



everything needed for its productive work at such prices and under such conditions or terms as might be reasonable at the moment of fixing the prices. Analogous obligations, although under another aspect, were assumed by the Government when it proposed to take all of the marketable products of the peasants at fixed prices. Since, in this case, production formed the very basis of the producer's existence, the aid given by the State had to take the form of supplying the peasant with all the essential commodities required in his daily life, which, of course, included articles used in his work. Compared with the magnitude of this task, the supply of agricultural implements and machinery appeared as of only secondary importance. Let us, therefore, first consider the former task, the task of furnishing the farmer with articles of prime necessity.

*Demand To Extend Fixed Prices to All Articles of Prime Necessity.*

As early as 1916, when fixed prices were being actually extended to include all the principal agricultural products, the demand of the agriculturists for articles of general necessity at proportionate prices was making itself more and more insistent. The system under which they were forced to pay steadily increasing prices in the open market for textiles, footwear, iron, kerosene, and other articles of prime necessity and, at the same time, dispose of their products at fixed prices, was regarded as a flagrant injustice. The commissioners' convention held in August, 1916, merely voiced the demands of public opinion when it insisted upon an "immediate establishment of fixed prices for all articles of general utility" and assumed that "only through the adoption of this urgent measure will there be attained an even distribution among all producers of the hardships due to the War." But it was only the Provisional Government that finally undertook to realize this immense task, actuated practically by the same motive. At the commissioners' convention which met in May, 1917, the Assistant Minister, M. Zelheim, said:

We all know, and we all have heard, of the resolutions, telegrams, and declarations coming in from the farming population, to the effect that "You want to take everything from us for the State or the cities, without giving anything in return. You are regulating prices of agricultural produce at the same time that the products of other industries remain practically without regulation and are inaccessible to us."

*Policy of the Provisional Government.*

Even earlier, on April 24, 1917, the Provisional Government had appointed a special commission to study the problem of furnishing the public with articles of prime necessity. The practical organization of such a supply was naturally entrusted to the Ministry of Food Supply. The decree of the Provisional Government issued on June 7 ordered the Ministry of Food Supply to "proceed to the organization of a systematic supply of the population, within the limits of available stocks, with textiles, footwear, kerosene, soap, and other articles of prime necessity." The actual distribution of such articles, moreover, was then started on a vast scale. In Moscow a special bureau was created for the distribution of textiles under the direction of a commissioner of the Ministry. We have to emphasize here that, at this stage, these measures were intended only as stimulants to further production, so as to restore a fair balance in the farmers' budgets by enabling them to realize on the sale of their produce enough to warrant the prices they were being charged on the other commodities that they normally purchased. The idea of direct barter between the Government and the producers had not yet been suggested. In the practice of local organizations, no doubt, there might already be found, here and there, individual agreements with the producers to exchange the food supplies that they required for their own use against other products, but this was not the usual method. One reason why the Government refrained from barter was that it did not wish to impair the stability of the currency by such a step. But even more decisive was the opinion that it ought to create a systematic and equitable organization of the supply of the nation in general. All articles of prime necessity were to be distributed on equalized ration cards and at fixed prices. Independently of such a distribution, which was only a general condition warranting the taking of his produce from the producer, such produce was to be taken at fixed prices. Direct exchange of goods, as a method and principle of general application in the extraction of foodstuffs from the agricultural population, came into use only during the period of the civil war, when, on the one side, the principle of the consistent and systematic regulation of the national economy was rejected, and, on the other, direct exchange of goods was resorted to only under the irresistible pressure of the food

scarcity, as affording the only means of obtaining goods without the use of force, the currency having lost practically all value.<sup>4</sup>

*Organization of Areas of Cultivation.*

Previous to the Revolution it had been one of the aims of the Government to come to the assistance of agriculture, to regulate the prices of its produce, and to appropriate this produce for the needs of the population and army, but it did not attempt to exercise any direct influence over the process of production itself. But the Provisional Government, in connection with measures for the protection of crops endangered by the popular turmoil of the Revolution, made plans also for the proper cultivation of fields left idle. By a decree issued on April 11, 1917, the Government admitted its obligation to compensate owners for all losses they might have sustained through popular disturbances, and it entrusted the protection of all crops, which had been made national property by the law on the grain monopoly, to the provincial, district, and *volost* food supply committees. To the same committees, which were to be assisted by individuals and institutions enjoying the confidence of the local inhabitants, were entrusted the functions of supervision and public control in this connection: (1) the determination of the areas to be cultivated, and (2) the supervision of the proper utilization of labor, equipment, and implements furnished by the Government. If an owner refused to cultivate his land, the idle land was to be taken over by the local food supply committees, and these were free either to lease it out for the given crop to local farmers at a fair price, or to make their own arrangements for cultivating it. The rent was to go to the owner of the land. In the instruction concerning this decree (May 30) it was pointed out that the compulsory sowing had for its object the attainment of a *normal* cultivated area, and that it was not to be extended to land which was normally left uncultivated. For the purpose of direct cultivation, the committees were to organize special labor gangs (composed of prisoners of war, soldiers, students, etc.), which were to be furnished with the necessary equipment, live stock, seeds, fertilizers, and other necessities for

<sup>4</sup> For a discussion of the problem of supplying the farmers with agricultural machinery, see Zagorsky, *State Control of Industry in Russia during the War* (Yale University Press, 1928), pp. 199 *sqq.* in this series of the "Economic and Social History of the World War."



carrying out the work. The food supply authorities were to keep careful account in these operations of all expenditure and of the harvest. To defray the expense of such direct cultivation, the committees could draw on a special fund set aside for this purpose.

*Disorganization of Agriculture and Helplessness  
of the Government.*

Under conditions of revolutionary chaos all these measures remained, of course, a dead letter. To afford an idea of these conditions, we shall quote from an order issued on July 18, 1917, by the Minister of Food Supply.

In many places [wrote the Minister], the inhabitants are resorting to violent, unlawful acts which prevent the farmers from attending to their harvests. Peasants are preventing the harvesting of the grain crops with the aid of agricultural machinery; they are withdrawing from state and private land prisoners of war, and regular as well as temporary laborers; they force proprietors and farmers to pay to the prisoners of war higher wages than those fixed by the Government; they compel both laborers and owners to raise wages already agreed to; they compel owners and farmers to pay farm labor in grain instead of money; they forcibly seize supplies of grain and forage, meadows, live stock, and equipment; they obstruct the harvesting of grain and hay, the threshing, the preparation of the fields for winter sowing, etc. The local food supply and land committees not only fail to stop at their source these unlawful outbreaks, which bring general disorganization, but they themselves are issuing orders and passing resolutions that furnish the population with excuses for indulging in these illegal and subversive acts.

Although the Minister commanded the food supply committees to put an end to these arbitrary proceedings, and to take measures for the gathering of the harvest and the sowing of the winter crops, "in order to save the fatherland and the Revolution," these exhortations remained mere words and led to no results.<sup>5</sup>

<sup>5</sup> For a detailed account of the conditions of agriculture see Antsiferov, Bilimovich, Batshev, and Ivantsov, *Russian Agriculture during the War* (Yale University Press, 1930), in this series of the "Economic and Social History of the World War."

## CHAPTER IX

### RATIONING OF CONSUMPTION

#### *Rationing of Consumption in Petrograd in 1915.*

THE Special Council on Food Supply was compelled from the very beginning of its work to define its attitude toward the question of rationing consumption. It was confronted with the problem of rationing consumption in the city of Petrograd, and the Chairman of the Council referred the matter to the Commission for Combating the High Cost of Living.

After a lengthy discussion at its meeting of December 28, 1915, the Commission arrived at the following conclusions.

There are still abundant stocks of supplies in Russia, and the food and fodder shortage from which the city of Petrograd has been suffering is due merely to the disorganization of transport. There is, therefore, no valid reason for rationing consumption in the capital, not to mention the fact that it would be so difficult and complicated an enterprise that its failure may be expected. And the consequences might prove really dangerous, since the people would blame for such a failure the Government itself. When consumption is rationed, involving, as this does, the provisioning of the inhabitants on a ration card basis, the existing *de facto* relationship between consumers and merchants gives way to quasi-legal claims and obligations, and the duty to supply, at definite periods and definite places, the commodities in question devolves on the organs of the Government. The city population moreover becomes entitled to demand that the supplies that are due to it shall be issued in proper quantity.

The Commission did not consider it possible for the Government to guarantee such continuous and adequate supply of the population out of the resources of the State, the more so as it seemed likely that the introduction of ration cards would tend to increase consumption appreciably; because people, fearful of a future scarcity of supplies, would probably take full advantage of their right to receive the stipulated rations. Lastly, the purely technical questions of keeping proper record of the population and distributing the ration cards appeared to the Commission rather be-

wildering. On the whole, the Commission took the view that the proposed rationing would require "a complicated and efficient organization for purchase, transport, and distribution by the unofficial and state organs, which is impracticable under existing conditions." The Commission therefore considered it "untimely, dangerous, and almost impossible of realization for technical reasons," to introduce in Petrograd the rationing of food consumption.

The report of the Commission was favorably received by the Special Council and its Chairman, at its meeting of December 30, 1915, and it determined for a long time to come the general attitude of the Government toward the question of rationing. It should be stated that the very fact that this question of an all-round rationing of food and fodder consumption was brought up only in Petrograd, without reference to the supply organization of the rest of the country, must be explained by the obvious lack of a clear understanding of the complexity and difficulty of the task, which ought to have been undertaken at the end rather than at the beginning of a carefully devised system of State control.

*General Attitude of Special Council toward Future Rationing of Consumption.*

As regards the future, the Special Council admitted the principle of rationing of consumption precisely as a final link in a whole chain of regulative measures;<sup>1</sup> but, being extremely reserved in its attitude toward the further extension of government intervention, it continued to deal very cautiously with the problem of organizing distribution on a nation-wide scale. In this matter, it preferred to follow as far as possible a policy of non-interference, under which the local authorities would enjoy freedom of action for themselves. Under these conditions, rationing came only when it appeared to be imperatively required in respect of certain articles of consumption, in which case the ration card system was applied as the most effective method of distribution. This was done, first of all, in the case of sugar. There was a general scarcity of this commodity, its wholesale supply was concentrated under the control of the Government, and local distribution was under the control of the public authorities, who were obliged to see to it that the sugar went to the consumers at the prescribed prices. Although the Special Coun-

<sup>1</sup> See Chapter II.



cil did not order any rationing of the consumption of sugar, this became inevitably necessary: for it was impossible to tolerate a situation in which the reasonable prices established with so much effort for sugar should benefit only the accidental holders of sugar supplies, who would be free to decide whether they should greatly increase their own consumption, to the detriment of their neighbors, or resell their supplies to their neighbors at speculative prices. It was, of course, natural that the rationing of sugar consumption should come into existence almost spontaneously all through the empire. It was natural, too, that the lack of general instructions from headquarters should impart to the rationing of sugar consumption a very motley character, and it was only gradually that it assumed (at least, in the urban centers) various forms of a single ration card system.

### *Rationing of Sugar Consumption.*

The rationing of sugar, as has been said here already, was due to two causes: (1) the general scarcity of the article, and (2) the intervention of the authorities in the work of supplying it. At first, the rationing consisted only of half-measures. Sometimes it would be a matter of distribution among their own members, in certain rations, by coöperative organizations who had obtained a supply in preference to other consumers. At other times merchants would be supplied with the commodity on condition that they should not sell to one customer more than a certain limited amount, say two pounds. Sometimes, again, the sale of such limited amounts was permitted only if the buyer presented either a specific permit or some document of personal identity, such as a passport, etc. Sometimes sales on ration cards were going on at municipal stores, out of the municipal sugar supplies, while private stores were at the same time selling their own supplies. But gradually the card system, offering the only effective and radical solution of the problem, in spite of certain technical difficulties involved in its introduction, eliminated all other forms of rationing.

### *Types of Ration Cards.*

Although applied in different ways, according to locality,<sup>2</sup> the

<sup>2</sup> Much material on this subject has been collected in *Normirovka Potreblenya (Rationing of Consumption)*, by G. K. Guins, published by the secretariat of the Special Council, Petrograd, 1916.

ration card system may be reduced to two fundamental types. The one aimed chiefly at assuring an equal distribution of whatever supply might be on hand, and did not entitle the holder of the card to receive periodically a definite and invariable amount of sugar. Supplies received would be apportioned among the municipal and zemstvo stores, among the coöperative stores, and among private merchants, and these would be bound to sell this sugar exclusively on cards issued for the area in question, in such quantities as might be indicated in the coupons attached to the cards, or in quantities that might be specifically proclaimed by the authorities as being due on the next coupon, and at prices, in either case, prescribed for each particular locality.

The second type of the ration cards laid particular emphasis on the regularity of a definite ration. A properly organized supply of the nation with definite amounts of sugar and more or less regular deliveries under the freight schedule offered a possibility that the latter system might operate. While the sugar ration card was almost everywhere understood to confer no legal right to demand a definite ration regularly, it was generally assumed by the public and by the local supply organizations that the card was something in the nature of a bond, or note, by which the Government itself had assumed the obligation, as it were, to supply sugar to the holder of the card. Failure to deliver the sugar due on the card was therefore likely to compromise the government supply organization. And in this way, in practice, the two types of the cards became really a single intermediate type: the card was to entitle its holder to receive a definite monthly allowance of sugar, but it was not a legal right, and it was understood that this allowance might be either reduced or stopped entirely, according to circumstances affecting the supply of the commodity.

#### *Acceptance of the Principle of Rationing Foodstuffs.*

For sugar, the ration cards gradually came to be the rule, extending to cities as well as country districts. The commissioners' convention on August 18, 1916, had already passed the resolution

recognizing that the introduction of ration cards for sugar, the shortage of which commodity in the next season may be considered as al-

ready definitely established, is not only desirable, but likewise timely and indispensable for areas of an urban character. For the rural population, the rationing of sugar is also necessary, but there is no need of any preliminary decision as to the system to be applied in such rationing, which should be left to the discretion of the local commissioners, following a discussion of the problem at the local council.

As regards the type of cards, the convention thought it best to have cards that would show definite amounts as due to the holder, but should not be considered as binding for a full ration. As regards other foodstuffs, the general principles applied in the case of sugar were adopted also for them, but before the Revolution ration cards were used only rarely for such products. In some of the urban centers, however, we find the card system in use for foodstuffs such as flour, grits, vegetable oil, and sometimes for salt and meat.

The enforcement of rationing developed in many different ways, and we cannot describe it here at length. Suffice it to say that sometimes it would be entrusted to the police authorities, at other times to the municipal and zemstvo institutions, and again at other times it would be in the hands of some special food supply organ. To carry the system into actual effect, it was usual to enlist the services of the police authorities, public welfare organizations, associations of the citizens, and other such bodies. The rations were also established according to local conditions, being worked out sometimes in great detail; at other times they would be of a general nature, the same for the whole population of the area covered by the card system.

### *Rationing of Meat.*

The meat-rationing measures were in a class by themselves. When the Government adopted a system of compulsory requisitioning of live stock for the supply of the army and the large cities, it sought at the same time to reduce to the minimum the general allowances of meat to be supplied through the medium of the zemstvos. To begin with, the Ministry of Agriculture, mindful of the undesirable consequences that would ensue for the agriculture of European Russia from the depletion of the live stock—since it was European Russia that had to bear almost the entire burden of the meat supply, owing to the unsatisfactory state of transport—urged upon the army authorities the desirability of reducing the meat ration in



the army. The army authorities granted the request and reduced the soldier's daily meat ration from one Russian pound to three-fourths, instituted two meatless days a week (Wednesday and Friday), which was at any rate in accordance with a custom in the Orthodox Church, and encouraged the supply of more fish for the soldiers.

With reduction of the meat consumption in the army, the Special Council was obliged to introduce similar measures among the civilian population also. A special commission appointed to deal with the matter, and presided over by M. Glinka, decided as follows: (1) to take measures to reduce the slaughter of live stock at all slaughterhouses, either on the basis of a certain percentage of the average daily slaughter, or by prohibiting all slaughtering on certain days of the week, and to limit the deliveries of live stock and beef at centers of consumption, increasing instead the deliveries of mutton, pork, fish, and vegetables; (2) to prohibit in urban communities the sale of all kinds of meat and meat products from shops, stores, and markets, two or three days a week; (3) to prohibit during these days the cooking of meat dishes in all public eating places in urban communities; (4) to take measures for the development of vegetable cultivation and poultry rearing; and (5) to give wide publicity to the motives responsible for the reduction of the meat supply in the interest of the State.

These conclusions were concurred in by the Special Council, but as it did not possess full authority to settle definitely the question of the prohibition of slaughter and sale of meat, it instructed its secretariat to draft an appropriate bill for submission to the legislative chambers. The bill was passed in the Duma on May 31, 1916, but met with considerable opposition in the State Council. Another bill prohibiting the slaughtering of calves for sale, and all transactions in veal, was rejected by a large majority in the State Council, mainly on the ground that the peasants were not in a position to rear all calves up to the age of a year and a half. As for the law regarding meatless days, the members of the State Council withdrew the original objections which they had made at the session of the joint committee,<sup>3</sup> and on June 22 the bill was passed as framed by the Duma.

<sup>3</sup> When the Duma and State Council were unable to agree on a bill, it was submitted to a joint committee, to endeavor to secure agreement.

*The Law Regarding Meatless Days.*

The new law was ratified by the Emperor on June 30, 1916, and was, in its main features, as follows: It was forbidden to sell or to peddle, on Tuesdays, Wednesdays, Thursdays, and Fridays, in stores, markets, bazaars, and other places, meat and meat products (canned meats, sausages, bacon, etc.) derived from large horned cattle, calves, sheep, lambs, hogs, and sucking pigs. During these days the public eating places (enumerated in the law) were prohibited from preparing for sale and from serving to their customers any dish composed of meat. On Mondays, Tuesdays, Wednesdays, and Thursdays, the killing of large horned cattle, calves, sheep, lambs, hogs, and sucking pigs was forbidden at slaughterhouses as well as by individual butchers. On Fridays, Saturdays, and Sundays, killing was permissible within the restrictions established by the municipal and zemstvo institutions. The latter were required to submit these restrictions to the Chairman of the Special Council, who might alter them as he saw fit. All these regulations were to be valid only for the duration of the War. Breaches of them were punished by the justices of the peace.

In practice, the enforcement of the new law met with a great many obstacles. The main difficulty lay in the problem of equalizing the rates of slaughter established by the various local government institutions.<sup>4</sup> How was this to be arranged? It would be necessary, in the first place, to obtain information concerning the number of cattle passing through a given abattoir; but in fact such records were maintained only at public slaughterhouses in the more or less important centers. Should slaughtering perhaps be regulated on a basis of per capita consumption? This, however, could not be definitely ascertained, and could at best be estimated only theoretically, leaving a wide latitude for arbitrary action. With an adequate system of records of the work of the abattoirs, the problem of regulating the slaughter would, of course, present no particular difficulty. The object of the law of June 30 was to reduce slaughtering by stopping it entirely during four days of the week, on the theory that three-sevenths of the average weekly killings ought to furnish, approximately, the proper quota of meat. But when the

<sup>4</sup> Moreover, the establishment of a definite quota of slaughtering would by no means solve the problem, since the reduced killing at the public abattoirs might be easily offset by increased private slaughtering.

per capita standard came to be considered, it was more difficult, especially since the local government institutions appeared to take the view that the regulation of slaughtering was not meant to secure a mere reduction of the animals killed, but was an attempt to ration consumption, with the result that there might often be an increase of animals killed during the slaughter days, offsetting the effects of the prohibition. At any rate, we have to note the fact that reports concerning the introduction of the regulations on slaughtering were received very slowly, so that on September 17, 1916, the Chairman of the Special Council was forced to repeat his request for these reports. Even then a number of localities failed to send in the required information.

### *Rationing of Other Foodstuffs.*

The law on meatless days had for its object the reduction, and not the rationing, of meat consumption. Similar measures were taken in regard to certain other foodstuffs. Thus it will be recalled that one of the very first measures adopted by the Special Council, the fixing of prices for oats, had for its object the withdrawal of a considerable amount of this product from circulation, inducing the population to use substitutes instead.<sup>5</sup> In this instance the reduction of consumption came about as a natural consequence of the withdrawal. In the case of other foodstuffs the reduction of consumption was prescribed by direct order. Thus, the grinding of expensive grades of flour was simply prohibited and cheaper grades were made compulsory everywhere.<sup>6</sup> Again, under the Provisional Government, measures of prohibition were directed against the baking of expensive bread. As early as March 7, 1917, the Minister of Agriculture requested the new municipal food supply committees to consider the advisability of the immediate prohibition of the baking of cakes, pies, tarts, and every other kind of pastry for sale. The motive assigned for this proposal was the general scarcity of wheat flour and the need of economizing in such important foodstuffs as butter, sugar, and eggs. In case of acceptance of this recommendation, the committees were empowered to proclaim at once the prohibition of the baking of these articles, a prohibition which the population was required to observe. A similar measure

<sup>5</sup> Cf. Chapter II.

<sup>6</sup> Cf. Chapter IV.



was adopted in the case of sweetmeats, of which expensive grades were prohibited, and uniform, cheap grades were alone permitted.<sup>7</sup>

*Ration Card System Extended to Entire Nation  
by the Provisional Government.*

Rationing of consumption under a card system on a national scale, extending to all essential foodstuffs, was instituted only after the establishment of the Provisional Government. In connection with the law on the State control of grain, an order was issued by the Minister of Agriculture on April 29 (superseded by the order of the Minister of Food Supply of June 26, 1917), by which the consumption of cereals was put on a ration basis. It provided that all cereals (rye, wheat, spelt, millet, buckwheat, lentils, beans, peas, maize, and every kind of flour and grits) should be distributed equally, through the medium of the food supply committees, and that increased bread rations should be issued to persons engaged in heavy physical labor. The kinds and qualities of the products and the methods and principles of their distribution were to be prescribed by the provincial food supply committees or, upon their instructions, by the subordinate local food supply committees.

The maximum monthly ration in rural areas was not to exceed the ration provided by the state grain control law, that is, fifty Russian pounds of grain for each member of the family, or sixty pounds for each worker, and 10 zolotniks<sup>8</sup> of grits a day per head, and the grits ration might be either raised or lowered, with corresponding changes in the grain ration. The maximum ration in urban communities was to be 25 Russian pounds of flour and 3 Russian pounds of grits a month per head, with augmented rations for persons employed on heavy physical labor, but not to exceed 37½ Russian pounds of flour a month. Flour and other cereal products to be used in making bread, macaroni, and other farinaceous pastes were to be issued as part of the general rations, and it was required that the entire output be accounted for and that the prices and the distribution of the finished product should be appropriately regulated. The allowances of products made of flour had to agree with the flour rations. While the above rations were to be the maximum allowed, they were not by any means obligatory upon

<sup>7</sup> Cf. Chapter X.

<sup>8</sup> One Russian pound = 96 zolotniks = 0.9 lb.; one zolotnik = 0.15 ounce.

the supply organizations. In all the cities and other districts of an urban character distribution was to be made on cards only. In rural localities, the mode of distribution was settled by the food supply committees, and equality was to be assured by some kind of formal control.

*Model Instruction of June 6, 1917.*

The methods to be followed in applying the card system of rationing were prescribed in a special "Model Instruction for the Organization of the Card System of Distribution of Flour and Bread in Cities and Areas of an Urban Character" issued June 6, 1917. The card system was to follow this instruction, but to take into account local conditions. The salient points of this instruction were as follows.

The card system of distribution includes the entire population, except the military, who are supplied by the War Department direct under a special arrangement. The population is recorded by a house to house enumeration, in accordance with the detailed regulations provided in the instruction. Cards or booklets with coupons are used for the work of distribution, and may be of the following types: (1) individual cards; (2) collective cards, issued for a whole family or other group of persons (*artel*, hospital, asylum, poor-house, etc.); (3) extra ration cards, for those engaged in heavy physical labor; (4) cards for temporary residents, with a limited number of coupons; and (5) cards with fractional ration coupons, entitling only to one-half or one-fourth rations, for bread to be issued to customers in restaurants. In appearance, the cards should be such as to show that the coupons detached from them are proper vouchers for the rations issued. The coupons may be of two forms: (1) indicating what ration is to be issued, and (2) without such indication. In the latter event, the ration is to be prescribed for a stated period by the food supply organs. The cards are issued free of charge, but the cost of printing them, together with other expenses, is added to the price of the article. The distribution of the cards is made through the janitors, or through the landlords or their agents, and cards must be signed by the issuing person. Each card bears the house number and name of the street, and the personal signature of the recipient. The identity of illiterate recipients who cannot sign their name must be attested by the person issuing

the card. If the consumers are to be assigned to certain specified places of supply, the fact should be noted on the card. Transfer of cards to others is prohibited. In case of absence for a period exceeding that covered by the card, the holder hands the card over to the administration of the dwelling house or tenement.

In connection with the establishment of the card system, a census is to be taken of bakeries and other places dealing in flour and bread, in order to ascertain their capacity of production, and those undertakings to which flour and bread will be issued for final distribution among the consumers are to be listed. As for restaurants and other public eating-places, it is desirable that they should be supplied with bread in the usual manner and that they should sell such products on cards only, either against full or fractional ration coupons. If this should prove impracticable, they are to be supplied according to the average number of their customers, in such a manner that restaurants of the first and second class should receive one-quarter, and other places one-half of the basic allowance per customer. Schools, kindergartens, day-nurseries, and similar institutions are to be supplied, not on ration cards, but under special regulations drawn up by the food supply authorities.

As soon as the card system begins to function, bread and flour are to be issued on cards only, and this only at stores, coöperative societies, and other institutions officially registered for this purpose by the food supply authorities. To accelerate and ensure a proper distribution, the consumers are assigned to definite places of distribution, and the latter are furnished with lists of such persons. The owners of these places are required (1) to issue products exclusively on presentation of the proper cards, coupons attached, which answer all formal requirements, (2) to sell at fixed prices only, and (3) to carry out all orders of the food supply organs having reference to the sale of bread and flour. In order that their sales may be checked, the owners must admit special inspectors appointed for such supervision by the food supply organs. Customers may demand a verification of the weight of the goods sold to them. To avoid the formation of long lines in front of the shops and to save time, goods may be obtained for more than a day in advance, provided that the food supply organs give the permission.

For each bakery and store, the amount of flour received, the amount of bread baked, received, and sold, as well as the amount of



flour and bread still on hand, shall be noted every day in a special record. The sales of flour and bread are accounted for by the coupons of the ration cards, which are to be handed in to the proper authorities by bakeries and stores in methodical order, grouped according to the different classes of rations. The limit of overweight allowance for the flour used by the bakers is prescribed by the food supply organs as may be necessary, but must not exceed 4 per cent of the total amount. The ration card regulations shall be binding on the provincial food supply committees.

### *Sugar Cards.*

The above regulations for the distribution of flour and bread served as models for the organization of the distribution of other products. On June 14, 1917, the regulations for the distribution of sugar were confirmed, together with a special instruction representing a variant of that outlined above. For the proper distribution of the sugar, the population was divided into three categories: rural, urban, and special, the latter including cities with a population over 500,000 and workers employed in establishments serving the needs of national defense. The monthly per capita allowances were: five-sixths of a Russian pound for rural inhabitants, one and a half Russian pounds for the urban population, and two Russian pounds for the special classes. The rations were to be determined by the provincial, territorial, and municipal supply committees respectively. Extra allowances of sugar were provided for hospitals, restaurants, tea-houses, pharmacies, and temporary residents, to the extent of 5 per cent of the total.

In the following points this instruction differed from that governing the distribution of flour and bread: Two additional types of ration cards were provided, namely, "community cards," issued for entire villages, and "special cards," for those employed on work for national defense. The sugar cards might be printed separately or as annexes to cards for other products. In cities and towns, the cards were printed according to the model adopted for the community in question. In the rural districts, the cards were prepared by the provincial food supply administrations, and these forms were to be used throughout the province. In urban communities, the cards were issued in the same way as those for flour and bread; in rural localities, they were issued by the *volost* food supply adminis-

trations or by persons or institutions authorized for the purpose by the *volost* organs. Cards issued in the rural districts had to show the name of the village, or farm, and the name of the recipient was to be noted on the corresponding list. On leaving his residence for another place, the holder was required to surrender his ration card and obtain a certificate to show the date up to which he was supplied with sugar. After his arrival at his new residence, he would be given a new card, but only upon presentation of such a certificate.

*Actual Extent of the Card System.*

The extension of the ration cards for meat to the whole of the empire was decided upon by the State Food Committee, but was never enforced.

To what extent was the generally compulsory card system for other commodities put into actual operation? As we have no reliable data on this subject, we are unable to give a definite answer. But we have good reason to suppose that ration cards or some other similar method of rationing sugar was common in rural districts as early as the spring of 1917; that it was the rule in the cities and was extensively, perhaps even generally, used in rural localities. As for bread cards, we have no data to show that they were in general use, but they were being rapidly adopted. In the early summer of 1917 an inquiry by the Moscow Soviet showed that, out of thirty-seven provinces answering the questionnaires, twenty-eight provinces had adopted bread cards in both urban and rural communities, and one province in the urban communities only. Five other provinces were just about to introduce the card system, and two had none. As the Government was taking over more and more of the organization of supply, the card system was becoming the general rule or, at all events, the only legitimate method of supplying the inhabitants, so that it was gradually bringing about a situation in which competitive trade became a prohibited and illegal business.

## CHAPTER X

### THE SUGAR MONOPOLY

#### *Measures of the Principal Committee on Food Supply.*

THE transport difficulties resulted at a comparatively early stage in a considerable increase in the price of sugar in the areas of consumption, which was not without some effect upon prices in the areas of production also. The public and the authorities were unanimous in regarding this increase as unwarranted and ascribed it to purely speculative inflation. One of the few measures taken by the Principal Committee on Food Supply during the short period of its existence was the establishment of maximum prices for lump sugar in the producing areas. And in accordance with these maximum prices the local authorities proceeded to regulate the prices in many of the consuming regions.

However, these measures proved ineffective. A sugar manufacturer could easily avoid them by refusing to do any business at his own factory and effecting his actual sales outside the area in which the prescribed prices were in force. Moreover, it was manifestly unfair to fix prices for lump sugar only, since lump sugar is calculated on the basis of granulated sugar prices, and the latter were not dealt with at all.

The whole problem was revised by the Special Council, in its resolution of October 9, 1915. By this time it had already become obvious that the country was suffering from an absolute scarcity of sugar, and the secretariat at first recommended a very radical solution of the problem, namely: (1) to prohibit the export of sugar to foreign countries, including Persia; (2) to proclaim all present supplies and the output of the 1915-1916 season State property, the prices to be established on the basis of the cost of production; (3) to frame at once a schedule for the transport of beet, fuel, and other necessities to the factories, under the actual control of the Ministry of Transport; and (4) to draw up the necessary regulations for the proper distribution of sugar.

#### *Sugar Problem Considered by the Special Council.*

The Commission for Combating the High Cost of Living discussed the matter at its meetings of September 16, 24, and 27, 1915.



It noted the fact that existing regulations were practically tantamount to an embargo on sugar exports to foreign countries, with the exception of Persia; it considered, however, an embargo on exports to Persia harmful, and merely proposed a reduction of the exports in the immediate future to 200,000 puds. As regards the general supply of sugar within the country, there were two different opinions. The majority favored price regulation for both lump and granulated sugar in areas of production as well as of consumption. Should merchants and refiners refuse to sell at these prices, the Government should requisition their supplies at reduced prices. Sugar obtained in this way would be handed over to municipal institutions and public organizations for distribution among the consumers.

The minority was in favor of leaving the sugar trade on a competitive basis, but of establishing at the same time maximum prices in the areas of production, so as to combat profiteering, and at these prices the Government should be free to requisition the sugar if owners refused to sell, and transfer such supplies to municipal and public organizations for final distribution. The only practical difference was that a reasonable doubt arose as to the right of the Chairman of the Special Council to regulate prices by his own authority. In the opinion of the minority, there would be no regulation of prices, but only the establishment of a maximum price at which the Government would be at liberty to requisition sugar to supply the dealers in case the producers should refuse to sell at the fixed price.

#### *Regulations of October 9, 1915.*

These doubts were shared by the members of the Special Council; they held that the regulation of sugar prices would require a change in the statutes of the Special Council, and they instructed the Commission for Combating the High Cost of Living to draft regulations in accordance with the minority report. These regulations, confirmed by the Special Council, were, in their principal features, as follows.

The price of granulated sugar in the chief area of its production, that is, the region served by the Southwestern Railways, was fixed by the Government as the basic price, and the station of Pogrebishche was adopted provisionally as the center of that area. In the

other areas the price of the granulated sugar was fixed on the basic price (5.1 rubles), plus freight from Pogrebishche to the chief town of the province in each area. The price of granulated sugar in the consuming areas was arrived at by adding the cost of freight from Pogrebishche and 10 per cent of 5.1 rubles, that is, 51 copecks, for overhead charges and profit, to the basic price. On these principles, a price list was worked out for 80 principal centers of the empire.<sup>1</sup> In the remaining localities, maximum prices were kept to the level prevailing in the nearest of the places listed in the regulations. As regards lump sugar, the prices were arrived at by simply adding a certain amount to the prices of granulated sugar.

In this manner the maximum wholesale prices of sugar were established throughout the empire. The purpose, as stated in the official resolution, was to enable the Government to ensure the supply of a certain amount of sugar for the needs of the population in case it should prove difficult to procure the necessary amounts from refiners, wholesalers, commission merchants, and banks, and to prevent speculative inflation of prices. The official prices were made compulsory for all owners of sugar in case of sales to the Government, as well as of sale to public and business organizations entrusted by the Government with the purchase of sugar. These prices, however, were not considered compulsory in *all* transactions, and departures therefrom were not punishable by fine or imprisonment. All that was sought by these regulations was to enable the commissioners of the Special Council to requisition, if necessary, the required amount of sugar from those who should refuse to sell at the maximum fixed prices to individuals or organizations designated by the Government; and this was to be done at a reduction of 15 per cent on the officially established prices. It was thought that the very possibility of thus requisitioning any quantity of sugar would prove sufficient to stabilize prices and prevent speculation. This seemed the more likely since the new prices were fixed relatively high, not only on the basis of the already abnormally high level, but even higher, in view of the likelihood of a rising cost of production before September 1, 1916, the date up to which the maximum prices had been fixed.

<sup>1</sup> On December 1, 1915, the Minister of Agriculture ordered maximum wholesale prices to be established in five additional places in the sugar-consuming regions.

*Order of October 30, 1915.*

These expectations were, however, disappointed. Prices kept on rising steadily (by December, 1915, the price of lump sugar in Kiev, the very heart of the sugar industry, had soared to 8.5 rubles), and it became necessary to consider the problem of getting the sugar to market at the fixed prices; in other words, it was now only a question of the best method of getting sugar for the specially authorized organizations at these prices. In the actual circumstances, the problem was made urgent by the increasing number of requests for such action received from zemstvos and municipalities. The result was that on October 30 a circular order was issued by the Chairman of the Special Council to his commissioners, instructing them to buy and, in case of refusal to sell by owners, to requisition all the sugar needed for cities, zemstvos, and other food supply organizations, and in exceptional cases also for merchants who would guarantee to sell sugar at fair prices, on receipt of petitions to this effect from the individuals and organizations concerned. In these circumstances, commissioners in consuming regions were to get into touch with their colleagues in the areas of production.

Buying at fixed prices was soon found necessary also in another quarter. We have seen that the price of lump sugar was calculated by adding to the price of granulated sugar the cost of refining, plus a fair rate of profit. This price, however, would be adequate for the refiners only in the event of their being really able to obtain their granulated sugar at fixed prices. But this, the refiners were complaining, had been practically impossible, and they had been forced to pay a great deal more than the price fixed for granulated sugar. The Special Council could not fail to take these complaints into consideration and the result was that on December 1, 1915, fixed prices were extended to granulated sugar purchases by refiners, with the threat of requisition at a reduction in case of refusal to sell at these prices.

The same order (December 1) included an additional provision, or amendment, which became logically indispensable since the refiners were now placed in the same class with public organizations engaged in the ultimate distribution of sugar. In order to be entitled to purchase granulated sugar at fixed prices, the refiners were compelled to agree to manufacture a corresponding amount of



lump sugar within a specified period and to sell the whole output, derived from any source whatever, not only to the commissioners of the Special Council, but to any other purchaser, at fixed prices. Compliance with this order was to be enforced by the revenue officers.

This amendment, however, made the order of December 1 a dead letter for all practical purposes, since the refiners preferred, as a rule, to buy their granulated sugar in the open market, in the hope of being able to dispose of their lump sugar output at competitive prices.

*Order of January 3, 1916.*

The Government was in the meantime proceeding with its measures for the introduction of the prices decreed on October 9, and for the elimination of competitive prices. One of the causes retarding the commissioners' sugar purchases on behalf of organizations engaged in distributing sugar among the consumers was the lack of the necessary funds at the disposal of the commissioners. As the refiner had to be paid in cash, the commissioner could intervene only when individuals or institutions asking for his intervention were in a position to produce the requisite funds. To assist the commissioners in such operations as much as possible, the Government opened special credits for some of the commissioners in the sugar manufacturing regions of Kiev, Kharkov, Poltava, and Tambov, and out of these credits payment was to be made for sugar bought on orders from commissioners in the consuming sections of the country. To obtain a more rapid circulation of such funds, the commissioners were instructed to buy sugar only when it could be transported immediately, and it was provided, furthermore, that the party ordering the consignment should make full payment at once upon presentation of the bill of lading.

It will thus be seen that the party giving the order in the area of consumption was not the commissioner. All that the latter did was to act as the intermediary, handing over the bill of lading to the actual purchaser, whether individual or organization, on payment of the sum due, and seeing to it that this sugar was distributed among the inhabitants at the prices prescribed by the commissioner, on the basis of the prices decreed on October 9, calculated to assure the retailers a return of their expenses *plus* normal profit. Only in

exceptional circumstances, when there was no other way of furnishing the inhabitants with sugar at fair prices, the commissioners were empowered to organize purchase and distribution on their own authority and for their own account. But in all such cases they were expected to submit to the Special Council a statement of the reasons for this action.

*Inadequacy of These Measures.*

None of these measures, however, proved effective in establishing fixed prices on a stable basis. The prices decreed October 9 were maintained only in those instances where a particular lot of sugar was bought, with the aid of the commissioners, at the fixed prices for a definitely stated organization. Otherwise, business continued on a basis of competitive prices, and these were already far in excess of those promulgated on October 9. Under these conditions it was but natural that the latter prices should lose all practical importance in the consuming areas. Every attempt to make these prices effective, either by regulation of the prices or by requisitioning the sugar at the fixed price, invariably led to a stoppage of supplies. At best, that is, after a brief period of success, every such measure proved a failure in the end, and even, as a general rule, harmful.

It became evident that the only way to maintain the prices fixed on October 9 would be to give the commissioners still wider powers. The need of systematizing the whole business was the more apparent and urgent since the purchases under the acts of October 30, 1915, and January 3, 1916, were being made without any method whatever, in an uncoördinated, haphazard manner. The casual fashion in which the consuming regions were being supplied gave rise, moreover, to discontent. The refiners, likewise, were dissatisfied with the conditions, which imposed upon them an entirely disproportionate share of the burden of the fixed prices. This partly explains the fact that the sugar manufacturers agreed more or less readily to the proposal to establish at Kiev a Central Bureau for the concentration of all government purchases of sugar at fixed prices.

*Central Bureau for the Concentration of Sugar Purchases.*

After this project had been carefully discussed at Kiev by a special conference presided over by the Minister and attended by

sugar manufacturers, it was examined by the Special Council on Food Supply and approved by its Chairman on January 20, 1916. With the composition of this Bureau we have already become acquainted.<sup>2</sup> It is important to bear in mind that the original scheme did not provide that the Central Bureau (*Centrosakhar*) should be given the exclusive monopoly of sugar transactions; it was intended only to concentrate all the buying of sugar for the Government and to allocate orders among the various refineries, taking into consideration their productive capacity, distances from points of destination, and the conditions of transport. Private orders might be executed by the refineries only after all orders received through *Centrosakhar* had been attended to. *Centrosakhar* was to collect all information relating to the stocks of sugar available at refineries and in warehouses, and to current as well as intended production. Refiners were required to report all orders accepted other than those from *Centrosakhar*, with the names of the customers, the price charged, amount ordered, and destination. *Centrosakhar* only placed the orders, making no direct payment: this was to be made in cash by those persons or organizations on whose behalf the order was given.

In the case of sugar bought for the needs of the population, the commissioner acted as the nominal buyer, and he handed over his orders to *Centrosakhar*, instead of delivering them to an individual factory, thus being only an intermediary between *Centrosakhar* and the actual purchaser. As regards the army, the purchasing of sugar for its requirements was transferred to the Ministry of Agriculture only after the establishment of *Centrosakhar*. The latter then was given orders by the High Commissioner for Grain Purchases, and he, in turn, received his orders from the Army Supply Department. Separate army units could obtain their sugar supplies through the commissioners, in the usual manner.

Such a late inclusion of the sugar purchases for the army in the program of the Ministry of Agriculture shows that the regulation of the sugar supply was not dictated by any immediate requirement of the army, but had for its object the establishment of fair prices in the market, to combat the rising tendency in sugar prices. As far as the army was concerned, the simplest method would have been, after concentration of sugar production under a single au-

<sup>2</sup> Cf. Chapter I.



thority had been achieved, either to take or to attach whatever sugar it needed, at the refineries, leaving the surplus to the open market. Such a plan was repeatedly urged upon the Government by the refiners themselves. But since it had already embarked upon the other scheme, the Government had to go further.

*Growing Demand for, and General Scarcity of, Sugar.*

In the first place, when it authorized the commissioners to buy sugar for supply organizations under their control, the Government had to place certain limits upon their powers. It was definitely known that the output of sugar was not sufficient to meet the demand, so long as the demand was not kept down by rising prices and was subject to definitely fixed maximum prices for a year ahead. Consumption of sugar, which was still cheap, was showing a marked tendency to rapid increase, owing to the prohibition of the sale of liquors and to the growing prosperity of the peasantry and, to some extent, of the city population. This is why the Special Council retained its right to regulate the demand in certain areas. This appeared urgently necessary, since an inquiry made by the Chairman of the Special Council regarding the monthly sugar quotas for the several areas showed that the demand was far in excess of supply. At the same time there were signs of a tendency to local hoarding and a still brisker demand. It seemed clear now that regulation would either have to be pushed to its ultimate conclusion or abandoned altogether, so as to leave the adjustment of supply and demand to the free play of market prices.

Yielding to the persistent demand of the public, the Government continued in the path of regulation, and on March 24, 1916, a decree was issued by the Ministry of Agriculture, based on the decision of the Special Council, which, in a way, may be regarded as completing the whole edifice of national sugar supply. The decree abolished the fixed maximum prices of sugar in the areas of consumption that had been established by the order of October 9, 1915. Instead, a unified system was created under which the regulation of prices was brought into close relation with the organization of supply and transport, and with the *Centrosakhar* as its main pivot; it followed the general principles of supply regulation proclaimed and already in part enforced by the Special Council.<sup>3</sup> Under this system,

<sup>3</sup> Cf. Chapter II.

*Centrosakhar* obtained far more influence than had been granted to it under the original plan.

As for prices, those established for granulated sugar in the areas of production by the decree of October 9, 1915, remained in force up to September 1, 1916. As regards lump sugar, the prices were somewhat increased, in view of the fact that the production of this commodity is not seasonal, but more evenly distributed. For this reason alone, if for no other, lump sugar was already experiencing the effects of high prices, a point that had not been considered in the original price schedule. On the basis of the prices thus fixed, an order of the Minister of Agriculture of February 12, 1916,<sup>4</sup> instructed the commissioners to regulate both wholesale and retail prices in all the provinces and territories of the empire, producing as well as consuming.

The practical introduction of the fixed prices and the regulation of prices on this basis was assured by the following measures.

In the first place, the permission of *Centrosakhar* and the commissioners had to be obtained for all consignments of sugar. No sugar could be sent from the producing provinces by rail or water unless such permits had been obtained, while sugar bought for the needs of the civilian population had to be consigned to the commissioners only. Non-producing provinces might dispatch sugar only with the consent of the commissioners, and had to consign such sugar to the commissioners themselves.

In the second place, *Centrosakhar* was required to issue permits for the transport of sugar only on condition that the sugar should be distributed equitably among the different parts of the empire and only within the limits of their normal demand.

In the third place, while it was not as yet required that every purchase of sugar should be authorized by the commissioners (as regards such as were authorized the commissioners would naturally see to the observance of the prescribed prices in the distribution) and while *Centrosakhar* might issue permits also for privately bought consignments of sugar, it was necessary even in respect of the latter that certain conditions should be fulfilled. The purchasers were requested to present declarations from the respective commissioners certifying that the individual or institution buying the sugar had agreed to dispose of it at the regulated wholesale price

<sup>4</sup> *Ibid.*

and to abide by the method of distribution established by the commissioners.

Lastly, to prevent the sugar distribution by *Centrosakhar* from becoming a dead letter, owing to transport difficulties, *Centrosakhar* was requested to draw up a national schedule of sugar transport for a month in advance, so that it might be passed on in good time to the Directing Committee of Railway Traffic for final arrangements. In order to prevent undue fluctuations in the schedule of transport through the failure of refineries to load the goods at the designated stations and on the scheduled dates, deliberate refusal to load was made equivalent to a refusal to sell at the fixed prices, and entailed a punitive reduction of 15 per cent in the price.

The machinery for supplying the nation with sugar was thus practically ready, and on April 6 the Chairman of the Special Council instructed his commissioners in the details of the new arrangement by a special circular, ordering them (1) to work out the necessary price regulations; (2) to purchase, through *Centrosakhar*, the monthly quotas of sugar for the account of the zemstvos, municipalities, and dealers who agreed to abide by the prices and terms prescribed by the commissioners, or to file a statement that a similar quantity of sugar had been purchased on similar terms from private dealers; (3) to proceed with the actual arrangements for the distribution of the sugar among the inhabitants at the prescribed prices; (4) where it was found that stocks of sugar were purposely withheld from the market, to ask permission to requisition such supplies for delivery to organizations distributing sugar at the official prices; and (5) to utilize the refiners' wholesale organizations as much as possible in wholesale transactions, on condition that these organizations submitted to the orders of the commissioners.<sup>5</sup>

#### *Order of May 26, 1916.*

The order issued by the Minister of Agriculture on May 26, 1916, constituted the final step. Henceforth sugar might be bought

<sup>5</sup> An order issued May 10, 1916, authorized the commissioners to requisition all sugar entering their province by rail, water, or carriage, which was not consigned to the commissioners and had no permit from *Centrosakhar*, if dispatched after March 24, and to apprise both the Chairman of the Special Council and *Centrosakhar* of such requisitions.



at refineries and warehouses only on order of the High Commissioner of the Ministry of Agriculture or of the commissioners of the Chairman of the Special Council, that is, through the machinery of *Centrosakhar*. This was the only means of securing that the output of sugar should be kept under strict control and accounted for, since it was found that the impossibility of dispatching sugar from the factory by rail or water unless a permit was obtained from *Centrosakhar* had enormously stimulated the flow of sugar from the factories by horse and wagon routes.<sup>6</sup>

The order of May 26, 1916, did away with the system of individual settlements between purchasers, whether they were commissioners or private persons and organizations, and factories. Henceforth, every account had to be settled by *Centrosakhar* exclusively. The main reason for this provision was that when settlements were made direct with the factories it was impossible to tell whether some additional payment had not been made beyond the fixed price. The only way to make the new system effective would be to accustom the manufacturers to the idea that fixed prices had come to stay and that there was no chance of circumventing them. But such a state of mind could be induced only if all private dealings and settlements were abolished. This is what the order of May 26 ensured. From this date forward, all factories were aware that they had to deal with *Centrosakhar* alone.

By these means the Government obtained complete control of the machinery of supply. Its principal function, the wholesale distribution of sugar throughout the country, was now in the hands of the Government. While retail distribution was still possible in private business, this, too, had been made subject to public supervision. To prevent breaches of the rules relating to local distribution laid down by the local commissioners, the order of May 26 provided that sugar

<sup>6</sup> On June 1, *Centrosakhar* was instructed to requisition, without the deduction of 15 per cent from the price, all sugar stored in the producing regions and released by the manufacturers without *Centrosakhar's* sanction. This was due to the fact that a large amount of sugar had left the refineries by horse and wagon routes after the order of March 24, and that this order came into actual effect rather late, thus permitting the refiners, on learning what was intended, to remove a considerable amount of sugar also by rail. The total amount of sugar thus removed to warehouses and loaded in trucks without the sanction of *Centrosakhar* was estimated at about two million puds.

might be transported within the limits of a province or territory only with the sanction of the local commissioner.

*National Schedule of Sugar Supply.*

With the completion of the initial measures of organization in this field, it next became necessary to consider a schedule of local supply and distribution. Provision had to be made for the proper distribution of the sugar available for the civilian population after the needs of the army had been met. The estimates prepared by the secretariat of the Special Council on the basis of transport returns and export and import statistics<sup>7</sup> in order to ascertain the pre-war supply of sugar to the various provinces and territories of the empire proved practically useless. It was not now a question of obtaining the figures of the probable demand, to be satisfied in full, but of the equitable distribution of the available supply, which was far from adequate. The mere fact that a particular province consumed a certain amount of sugar before the War did not in itself warrant the assumption that the same quantity would be sufficient to meet the 1916 demand, for this had greatly increased. It was self-evident that, whatever method was used in the distribution of sugar, there was not enough of it to meet all requirements and distribution would have to be based upon this fact. Under these conditions a blind adoption of the ratios prevailing for the various localities before the War would undoubtedly be wrong. A different rule was therefore adopted, which, while taking account, up to a certain point, of the pre-war figures, which were normally much lower in the country than in the towns, disregarded local conditions and differences almost entirely and was based on the principle of equal distribution among all the inhabitants. The amount of sugar required for each commissioner's area was calculated on the basis of population figures. The monthly per capita allowances were laid down as follows: for Petrograd and Moscow, four Russian pounds;<sup>8</sup> for cities with more than 150,000 inhabitants, two and a half Russian pounds; for other cities, one and a half Russian pounds; for rural areas, five-sixths of a pound; while for provinces in the war zone

<sup>7</sup> This investigation was carried out by M. Breiterman and published by the secretariat of the Special Council under the title of *Potreblenie Sakhara v Rossii* (*Sugar Consumption in Russia*).

<sup>8</sup> Cf. p. 169, n. 8.

and those that were producing sugar, additional rations were provided. In this way the monthly quota of sugar of each particular area was determined.

To put the supply on a proper footing at once, allowance for a two months' supply was made in the national transport schedule for June, and commissioners were notified that this allowance must satisfy their respective territories during June and July (circular order of June 17, 1916). But the quotas allowed to each area did not of themselves guarantee actual distribution of these allowances among the ultimate consumers. Final distribution was left to the discretion of the commissioner and his council, according to local conditions. Commissioners were instructed only to pay special attention to the supply of persons employed in establishments working for national defense, and sweetmeat factories and canneries turning out cheaper grades of goods for popular consumption.

#### *Further Changes in Sugar Rationing.*

Later on, there were further changes in the distribution of sugar. The four-pounds allowance for the inhabitants of Petrograd and Moscow had been granted because of the large number of sugar-converting works in those cities. After September, 1916, special allowances were made for all works using sugar in manufacturing processes and for tea-shops and restaurants, and the ration was reduced to three pounds a month. For the rest of the population in the provinces in which the capitals were situated, the allowance was increased to two pounds in the towns and one pound in the country. Additional rations were allowed to the working population: those employed on work for national defense were entitled to five pounds (two for the worker and three for the family), miners were to receive two and a half pounds, and all other workers, two pounds. Sugar factories were authorized to retain for their workers, with the consent of *Centrosakhar*, up to 1 per cent of their annual production.

It must be stated emphatically that these rations, introduced in the third year of the War, did not necessarily mean that less sugar was consumed than before the War. For the three-year period 1911-1913, the average monthly sugar consumption of the nation was 6.3 million puds, equal to an annual consumption per head of 18.13 Russian pounds. During the period when the government



distribution was developing (September, 1916—January, 1917), the average monthly quota was approximately 7 million puds, being 7,228,000 puds in December, 1916, and 7,634,000 in January, 1917. It will thus be seen that the consumption was then far in excess of the pre-war period. No doubt, a great deal of sugar went to the front, which was abundantly supplied (five and three-eighths pounds per soldier; only after September, 1916, was this ration reduced to three and seven-eighths pounds a month, the other two pounds being replaced by a money payment). But the share that went to the civilian population was approximately the same as before the War. If nevertheless a dearth of sugar was experienced in the country, making it necessary to introduce card rationing, it was only because the sugar remained cheap in price, while the demand was far above that before the War.

*General Features of the Sugar Supply Organization  
at the Beginning of 1917.*

Let us now review broadly the organization of the sugar supply as it existed at the beginning of 1917. *Centrosakhar* is placed in full control of all sugar production at fixed prices.<sup>9</sup> No sugar might be loaded or transported without permits issued by *Centrosakhar*, which distributes it to commissioners and to supply organs (Army Supply Department, zemstvos, municipalities), in accordance with a monthly transport schedule worked out beforehand. The release (and especially the weighing) of the sugar for transport takes place under the direct supervision of the revenue inspectors and under the general control of *Centrosakhar* officers (it had a special force of its own inspectors). If the sugar has to be conveyed to the nearest station by horse and wagon, and the factory delays the dispatch, *Centrosakhar* itself attends to the conveyance, charging the cost to the factory. Loadings must be reported to *Centrosakhar* by the station-master by special printed forms, apart from the bill of lading to be forwarded to *Centrosakhar*. On receipt of the bill of

<sup>9</sup> By order of the Ministry of Agriculture of June 30, 1916, prices were fixed also for broken and powdered lump sugar, and under an order of the same Ministry issued November 26, 1916, *Centrosakhar* took control of all sugar syrups. Other raw products of the sugar-beet and refining industries were withdrawn from the market, their sale being prohibited, with the exception of some special cases permitted by *Centrosakhar*. The only article that could be disposed of freely by the refineries was black molasses.

lading, *Centrosakhar* pays to the dispatching factory whatever may be due for the sugar, and then forwards the bill of lading to the appropriate commissioner. In addition to this, *Centrosakhar* immediately notifies the commissioner concerned of the date of consignment, reporting the number of trucks and the points of dispatch and destination, so that the commissioner may be able to obtain his consignment of sugar without undue delay upon its arrival at destination, and may have an opportunity of preparing the funds to make timely payment to *Centrosakhar* on the receipt of a duplicate of the bill of lading. The commissioners distribute the sugar as may be necessary, to make sure that it reaches the consumers at the prices officially prescribed.

It should be noted, however, that price regulation for sugar became generally effective only toward the close of 1916, in consequence of the persistent demands of the central administration, after the sugar supply schedule had actually been put into effect and the local authorities had thereby been enabled to control all the supply coming into the market and to feel more or less certain of obtaining the sugar apportioned to them. At about the same time the card system of rationing sugar was started. The system had not been urged, nor even recommended, by the central Government, which intended to leave the matter to the discretion of the local authorities. But circumstances made it inevitable that some formal rationing of distribution should be adopted, as the final link in a chain of supply measures, and thus we find in the autumn of 1916 no less than thirty provinces already using sugar cards, either in the larger towns or throughout the province.

#### *Imports and Exports of Sugar.*

The organization for the distribution of sugar was thus fairly well established. The next problem to be considered was whether the rations that had been fixed could be maintained during the next season. This seemed unlikely in the light of the probable output in 1916-1917, and, as it appeared to be undesirable to reduce still further the consumption of sugar, the possibilities of imports from foreign countries were seriously debated. Hitherto, Russia had not been an importing country for sugar, and a high protective tariff was maintained on this article. Russia was, on the contrary, a large exporter of sugar, the principal markets being Finland and Persia,

and Rumania also took a large amount of Russian sugar. Russia could not stop exports to Finland and Persia even in war-time.<sup>10</sup> Finland was, after all, part of the Russian Empire, and to Persia Russian sugar was a most important commodity, and it enabled Russia to obtain in return the Persian currency needed to pay for the provisions, chiefly meat, purchased in Persia for the Russian Army in the Caucasus. It appeared therefore necessary, in order to keep up the exports and put no further restrictions upon the domestic consumption, to import a certain amount of sugar from abroad.

On April 10, 1916, the Council of Ministers, acting under the provisions of Article 87 of the Fundamental Laws of the Empire, promulgated a decree ratified by the Emperor, which permitted the duty-free importation of foreign sugar up to 20 million puds until September 1, 1917. This decree was put into effect by an order of the Minister of Finance issued on January 26, 1917, with the provision that the necessary permits for duty-exempt imports should be issued by the Minister of Agriculture in agreement with the Minister of Finance, subject to conditions to be laid down in each separate case.

For the practical exercise of this right, a specially appointed commission elaborated the following principles to be followed in issuing these import licenses: (1) Settlement of foreign account should be made in accordance with the views of the Credit Office (of the Ministry of Finance), so as to protect the Russian ruble from depreciation on the foreign exchanges; (2) the imported sugar should be added to the common stock for distribution; (3) in importing foreign sugar, the first point to be considered should be the transport facilities, that is, the import should be arranged with due regard to the congested state of the railways. It would naturally help to supply first of all the outlying territories easily reached by way of Vladivostok and Archangel.

To carry out these principles, several interesting suggestions were offered, two among them deserving special mention. One was made by a group of big manufacturers of biscuits, chocolates, and sweetmeats, whose works, in spite of an enormous demand for their

<sup>10</sup> Generally, all sugar exports were prohibited as early as 1915, and by order of the Ministry of Finance of December 11, 1916, the export of products derived from sugar was likewise prohibited.



products, could not be run up to full capacity, owing to the limited supply of sugar at their disposal. These manufacturers proposed to import sugar from abroad on their own account and deliver such sugar at whatever point might be designated by the Government, provided that they were enabled to obtain an equal amount of Russian sugar, pud for pud. Under this arrangement, they pointed out, they would obtain the foreign sugar on private credits, and on terms prescribed by the Credit Office, without much difficulty and trouble, and hand it over to the Government at fixed prices, by way of barter for domestic sugar; the importers would assume the burden of the difference in the cost of foreign sugar.

The other proposal was finally accepted. This involved the co-operation of the *Russki Uchotno-Ssudny Bank* (Russian Discount Loan Bank) in Persia. We have already noted the immense value of the Russian sugar export to Persia as a means of securing the Persian currency with which to pay for the Russian Government's purchases in that country. This made it highly important that there should be no reduction in the volume of these exports, and at the same time that they should be kept concentrated under a single control, not only for the reasons just stated, but likewise for the purpose of controlling prices. Formerly, the actual management of the sugar exports to Persia was in the hands of a special organ under the jurisdiction of the Viceroy of the Caucasus. But when the feasibility of foreign sugar importation to Russia was ascertained beyond doubt, the following procedure was decided upon: The Russian Discount Loan Bank in Persia, as an institution having close relations with the Russian Ministry of Finance, was to receive through *Centrosakhar* 1,500,000 puds of sugar, mainly of the so-called "Marseilles Loaf" variety, specially manufactured for the Persian export trade; in return, this bank undertook to bring in from abroad a corresponding amount of foreign sugar and place this at the disposal of *Centrosakhar*. And, in consideration of the extremely high price of sugar in the Persian market, the importing institution would have to assume not only the difference between the cost of the foreign and domestic product, but also the payment of customs duties.

Neither scheme, however, could be carried into effect during the pre-revolutionary period, and they remained mere proposals. After the Revolution, under the Provisional Government, it was decided

to grant the Moscow People's Bank a monopoly of foreign sugar imports, but here, again, no practical results followed.<sup>11</sup>

To a certain extent, however, sugar was being imported from abroad, and that sugar which had already been imported but detained at the customhouse in Vladivostok pending the settlement of the question of the decree of October 10, 1916, was being pushed through over the congested traffic arteries to the interior. By decree of April 29, 1917, permission was granted to bring in 1,200,000 puds of sugar to satisfy the needs of the Far East, on condition that this sugar should be distributed, at the rate of 100,000 puds a month, under the supervision of a specially authorized official, at prices to be fixed by him. In addition, it was stipulated that only such sugar should be imported as could be obtained on a credit extending to not less than eighteen months after the ratification of a peace treaty.

*Initial Measures of the Provisional Government for the Regulation of Sugar Supply.*

At first, the Provisional Government left the old system of sugar supply in force, confining itself to some changes in the calculation of the rations and a more careful regulation of the local supply organizations. We refer to the decision of the State Food Committee of June 14, 1917, concerning the manner in which sugar should be distributed until the new crop could be put on the market. In its main features, this was as follows: The population of the whole country was divided into three classes, (1) rural, (2) urban, (3) special, the latter including the inhabitants of cities with a population of more than 500,000 and persons working for national defense. The rations were: for the first category, five-sixths of a Russian pound,<sup>12</sup> for the second, one and a half pounds, for the third, two pounds a head a month. The supply quotas were to be determined by the provincial, territorial, or municipal food supply committees as the case might be, but were not to exceed the maximum quotas allowed for their respective areas. In addition to their normal allowances, they were entitled to receive an extra 5 per cent for

<sup>11</sup> Almost on the eve of the Bolshevik Revolution, the Provisional Government extended the period for privileged sugar imports from abroad for another year (Decree of October 14, 1917).

<sup>12</sup> See p. 169, n. 8.

the needs of hospitals, restaurants, tea-houses, buffets, etc., and for travelers. A surplus of sugar obtained as a result of an exaggerated estimate of the population or from the 5 per cent extra allowances, might not be used to increase the regular rations, but had to be placed in reserve and used in the quota of the following month.

Under the instruction issued by the State Food Committee in connection with the decree just outlined, the sale and distribution of sugar, except to the army, which was provisioned directly by the Army Supply Department, was to be carried out under a ration card system. Exceptions might be made, with the consent of the provincial food supply committees, only in those rural districts where the card system would be impossible on account of local conditions; but in these areas, too, some other kind of rationing had to be established, to ensure equitable distribution. The practical working of the card system was to be left to the discretion of the local organs of food supply, but within the limits of a detailed model instruction which was forwarded at the same time to all the food supply committees of the country and which was a variant of the instruction issued on June 6, 1917, for the organization of the card system of distribution for flour and bread in cities and urban areas.<sup>13</sup>

On September 14, 1917, the organization for the supply of sugar as a component part of the general food supply organization was formally abolished and a government sugar monopoly took its place.<sup>14</sup> The principal features of this new decree of the Provisional Government were the following.

The sale of sugar for consumption and the import and export of the same are the exclusive right of the Government. By agreement between the Ministers of Finance and of Food Supply, the monopoly may be extended to comprise all products of the sugar-beet and glucose industry. The department of the Ministry of Finance dealing with internal revenue is charged with the national and also

<sup>13</sup> Cf. Chapter IX.

<sup>14</sup> It should be noted that until this time the concentration of the entire sugar supply organization under government control had not been used as a means of obtaining revenue. The only thing the Government did was to increase the excise duty from 2 rubles to 2.8 rubles per pud (Decree of Council of Ministers, September 16, 1916). And the only tax laid on sugar by *Centrosakhar* was 5 copecks per pud, to defray its own and the local commissioners' administrative expenses.



the local administration of the monopoly. All granulated sugar produced in Russia is taken over by the Government at prices fixed by the Ministry of Finance for each refining season, based upon cost of production and including: delivery at the railway station or harbor of the place whence it is dispatched; loading in trucks or ships, and in case of horse cartage, loading in warehouse or refinery; and unloading and delivery at destination. Refiners may deliver to the Government lump sugar instead of granulated, with a corresponding extra allowance for the cost of refining. Sugar acquired by the Government is refined either at private or government works, on conditions prescribed by the Ministry of Finance. To ascertain cost of production, specially authorized officers from the Ministry of Finance may examine the books and documents of refiners. Factories and customhouses may release sugar only at the request of the internal revenue authorities, and the sale of sugar is permitted only from those factories, warehouses, government stores, and co-operative and private stores which are authorized to that effect, on a commission basis.

The selling prices of sugar, within the range of those minimum and maximum prices which are to be fixed by special laws, are to be determined by the Minister of Finance.<sup>15</sup> For the duration of the War, the army and population are to be supplied with sugar in accordance with a schedule approved by the Ministry of Food Supply and the Supreme Economic Committee. Army sugar is handed over to the War Department, while sugar destined for the population at large is to be controlled by the higher authorities of the internal revenue service, who are to distribute it among the stores.<sup>16</sup> The requisite funds to carry the State monopoly into actual effect are to be appropriated by the State Treasury under the proper estimates, and the sums derived from the sale of the sugar will be entered as receipts of the Treasury.

This decree was to be put into effect on November 1, 1917, but by this time the Provisional Government had already been overthrown by the Bolsheviks.<sup>17</sup>

<sup>15</sup> The limits of these minimum and maximum prices were fixed by the decree for the time being at 37.2 to 57.2 rubles per pud of granulated, and 40 to 60 rubles, of lump sugar.

<sup>16</sup> Selling prices were fixed at 56.8 rubles for granulated and 60 rubles for lump sugar.

<sup>17</sup> There was a plan on foot to extend government intervention still fur-

*Regulation of the Confectionery Business.*

Our exposition of the measures that were taken for the organization of the sugar supply would be incomplete if we made no mention of the industries that used sugar in their manufacturing processes. After it had taken over full control of sugar distribution, the Government was inevitably driven to face the problem of large consumers of sugar like the confectionery business.<sup>18</sup> It should be pointed out here that voices were to be heard both among the public and in the Special Council, decidedly opposed to the idea of furnishing this industry with sugar. In their opinion it was far preferable that the general sugar ration of the civilian population should be raised than that sugar should be given to manufacturers of all kinds of sweets. But a closer study of the problem soon showed that it was distinctly in the interest of the mass of the people that the sweetmeat and confectionery trade should receive its requisite supply of sugar. It was found, among other things, that certain grades of such goods were coming more and more into demand, owing partly to the lessened consumption of the lump sugar so generally used by Russians in drinking tea; as the output of lump sugar had been greatly reduced, the people were often unable to obtain it, and substitutes were therefore sought.<sup>19</sup> It was also found that candies and other such sweets contained up to two and a half times as much sweetening substance as the sugar that was used in their manufacture, thanks to the addition of fruit syrups, honey, chocolate, and similar ingredients.

In view of these facts, the Special Council decided that it was feasible to satisfy the sugar requirements of the confectionery business to a very large extent. To organize a fair distribution of the sugar among the various factories and to elaborate further plans

ther. Thus the State Food Committee at its June session resolved "to request the Ministry of Food Supply to draw up without delay a plan for the regulation of the entire sugar industry, laying down as the basis of such a plan the principle of a compulsory governmental syndicalization of all factories, with a strict regulation of prices, profits, and wages."

<sup>18</sup> See A. Zykov, in the Bulletin (*Izvestia*) of the Special Council on Food Supply, February, 1917, No. 2/31, and in *Izvestia po Prodovolstvennomu Delu*, No. 1/32, May, 1917.

<sup>19</sup> Lump sugar production had been curtailed to save fuel; cf. Chapter VI.

involving a reduction in the number of grades and the fixing of prices, a special commission was created by the Special Council.

A questionnaire was addressed to all the provinces in September, 1916, in order to obtain a survey of the existing conditions in the confectionery trade and to ascertain the demand for its products. Further steps to regulate these industries were taken by the Provisional Government, which issued on June 29, 1917, a special decree concerning this matter.

Under this decree, sugar might be used only in the manufacture of tablet chocolate, hard caramel with and without filling, soft caramel, marmalade, and the so-called "pastille." For each of these six different kinds of sweets, a maximum sugar content was decreed. All manufactures of this class were placed under official control. Statements of the amount of such products required had to be forwarded by the Food Supply Committee to the Ministry of Food Supply. The latter elaborated production schedules for such goods and instructed the local food supply committees to allocate orders accordingly. These local committees were further enjoined to exercise constant supervision over the factories under their jurisdiction. No such factory might release goods without the permission of the local committee. Sweetmeats and confectionery received by the committees entered into the sugar supply quotas on the basis of one and a half pounds for each pound of sugar. All such sweets were to be issued to the inhabitants on their sugar cards, at this ratio. All authorized products of the industry were to be sold at prices fixed by the State Food Committee. Local committees arranged the method of distribution among the consumers, and regulated prices.

Supplementing and amplifying this decree, a special instruction was issued on July 22, 1917, by the Ministry of Food Supply, detailing the rules for the control of factories in this industry, the manner of allocating orders, and the best method of bringing the goods within reach of the consumer.

#### *Regulation of the Potato-Syrup Industry.*

In conclusion, we should add a few words concerning the regulation of the supply of potato-syrup products.<sup>20</sup> Owing to the limit on the further increase in the price of sugar and its scarcity in the

<sup>20</sup> Cf. S. Zashchuk, in *Izvestia po Prodovolstvennomu Delu*, No. 2/33, 1917.



confectionery industry, potato-syrup, which was not controlled, was placed in an extraordinarily advantageous position. Its price kept rising steadily, with the result that beet-sugar, notwithstanding that it was subject to excise duties, was quoted in the market at one-third or one-fourth of the price of the far inferior and duty-exempt syrup. Against this abnormal state of affairs the Government thought it necessary to take action, and the result was that the State Food Committee, at its meeting of April 9, 1917, decided to take under its own control the production and distribution of potato-syrup and regulate the price.

At the same time, while appropriate measures were being prepared, it was seen that syrup regulation alone would be impossible unless the price of starch was also controlled. Otherwise all starch would go into manufacturing processes (paper, textiles, cotton-print, potato-flour, etc.) and the syrup manufacturers would be left without starch. There was also some doubt as to the possibility of regulating the prices of starch and syrup while leaving unregulated the price of potatoes, as these might be used for food, at least in areas where transport was comparatively easy, leaving the starch factories without any potatoes. On the other hand, in view of the expected scarcity of potatoes for food, it seemed desirable not only to refrain from artificially encouraging, but even to restrict, the syrup output to the lowest possible minimum required to keep the sweetmeat and confectionery industries running, after allowing for the sugar available.

These considerations brought to the fore the question of working out a general production schedule for syrup, apportioning the production to be decided upon for the 1917-1918 season among the different producing areas, and allocating the orders to the various undertakings. To render such a plan feasible, it was necessary to see to it that sufficient starch should be assured for the needs of the syrup factories.

The general principles here outlined were discussed by the convention of potato-syrup manufacturers held on July 5, 1917, and it was proposed that the manufacturers should form a special organization which would enable them to carry out this program with the greatest possible efficiency and least inconvenience. Such a body, known as the All-Russian Association of Potato-Syrup Manufacturers, was then created; based upon this association, but with a

few changes in the statutes, an organization was formed by order of the Ministry of Food Supply of September 14, 1917, for the regulation of the starch and potato-syrup industries, as described elsewhere in this volume.<sup>21</sup>

The new organization was rapidly formed at Moscow and went to work without delay. The procedure to be followed in the purchase of potato starch was laid down in the order of the Ministry of Food Supply issued on September 19, 1917. All buying of raw starch in the producing regions was concentrated in the hands of the Association. All purchases had to be made at prices fixed by the same order, and starch bought without the knowledge of the Association was subject to requisition by the provincial food supply committees. On October 19, an order was issued by the Ministry of Food Supply, fixing prices of potato-flour, dextrine, sago, potato-syrup, and glucose, and laying down the following rules for the purchase of these products: All purchases in European Russia were to pass through the Association, at the fixed prices. Factories were to deliver the goods thus purchased to the nearest station or port, on receipt of an order from the Association. But before giving an order, the Association might insist upon an advance payment by the buyers, sufficient to ensure a regular settlement of accounts. On November 8, 1917, when the Soviet *coup d'état* had already taken place, the Ministry of Food Supply issued an order making it obligatory to obtain the permit of the Association or its authorized representatives for any consignment of the above products by rail or water. On November 15 was issued the last order of the Ministry, introducing a few changes in the prices fixed for syrup and starch.

The Association continued to work for some time even after the Soviet Revolution, until it was finally absorbed by the organs of the new authority.

<sup>21</sup> Cf. Chapter I.

## CHAPTER XI

### SALT AND MEAT<sup>1</sup>

#### I. SALT

##### *First Measures of State Regulation of the Supply of Salt.*

IN the organization of the supply of salt, the Special Council confined itself for a considerable time to partial measures. During the first half year of the existence of this Council, when the skeleton organization of the sugar supply was practically completed, scarcely any measures were taken to regulate the salt supply of the nation. The only important measure taken during this period was to grant permission to the Perm commissioner to purchase, at prices specially fixed for the purpose, and to requisition at a 15 per cent reduction of price in case of refusal to sell, one million puds (some-what later another million) of Perm salt, to be distributed among the various public organizations in the province of Perm and among the commissioners in Petrograd and Moscow and a number of provinces normally receiving Perm salt.

This late action was attributable, on the one hand, to the fact that there was an abundant supply of salt in the country, produced in different ways and from different sources in many sections of the empire.<sup>2</sup> There was Bakhmut rock salt and Slavyansk kitchen salt in the Donets Basin, Baskunchak and Elton lake salt in the Astrakhan region, pickling salt in the region of Perm, Saki and Taganash lake salt in the Crimea, lake salt in the Iletski area, at Kuyalnik in the Odessa region, and in the Districts of Pavlodar and Semipalatinsk, in the province of Semipalatinsk. On the other hand, because of its cheapness, salt meant so little in the consumer's budget that even the substantial increase of its price passed comparatively unnoticed. In respect of transport, likewise, this article

<sup>1</sup> In view of the uniformity of the measures taken, it is unnecessary to describe the supply organization of all the various foodstuffs. We therefore confine ourselves here to salt and meat, as showing a considerable deviation from the rule.

<sup>2</sup> See articles by Y. M. Bukshpan and A. I. Zykov in the Bulletin (*Izvestia*) of the Special Council on Food Supply.



was in a relatively favorable position, as its deposits were scattered in many widely separated areas and it was conveyed to a very large extent by water. Lastly, there could naturally be no increased demand for a commodity such as salt. Nevertheless, the growing difficulties of transport and curtailment of production in some regions, as a result of the fuel and labor scarcity, forced the Government gradually to pay more and more attention to the salt problem, until the supply of the population with this article became an object of extensive regulation, ending at last in a government monopoly.

*Decree of March 12, 1916, Fixing the Price of Perm Salt.*

The first instance of decisive action by the Government in this field was in the case of Perm salt. A decree issued on March 12, 1916, established a fixed price for this salt, and the local commissioner was authorized to buy up salt at this price for commissioners in a number of provinces which normally used Perm salt, as well as for the commissioners of Petrograd and Moscow, for the account of persons and institutions recommended by these commissioners. Such recommendations might be given both to public and to private organizations, but on condition that they offered a guarantee that the goods would be sold to the public at prices regulated by the commissioners.

In actual practice, however, government intervention went far beyond the limits set by this decree. Perm salt was transported by water, and little time was left for the utilization of the navigation season then beginning. To wait for specific orders from the several commissioners would delay the whole operation. The Chairman of the Special Council accordingly instructed M. Kalugin, the commissioner for Perm, to buy up the entire local output. The producers were paid a certain sum for freight, stipulated in advance, and the salt was loaded and dispatched according to the orders from the various commissioners, who had by this time been directed to send their orders to the Perm commissioner.

*Organization of Salt Committees and of Supply, by the Order of April 2, 1916.*

These provisions for dealing with Perm salt were extended, in a final and more comprehensive form, to the other principal areas of salt production, by an order issued on April 2, 1916. Prices were

now fixed also for Donets, Crimean, and Astrakhan salt. The salt committees to which we have already referred<sup>3</sup> were established in these four areas of production. If commissioners in consuming regions found it difficult to purchase sufficient salt for their needs, they might request the committees to buy salt for whomsoever they recommended. But such recommendations might be given only on condition that the salt was to be sold to consumers at fair prices. The committee would then allocate the commissioners' orders among the various producers, preference being shown to those who agreed to sell at the most moderate price; should this prove impracticable, the orders were to be apportioned evenly, at stated maximum prices. The committee was to see that these orders were properly executed and that the goods were loaded up to time, and in case of deliberate delay it might requisition the salt with a punitive reduction of price. The committee also concentrated all the information required with regard to salt works and wholesale dealers.

Under this scheme, the salt market was still left open, but the commissioners were at the same time enabled to buy at fixed prices the quantities of salt required by individuals and organizations taken under their control. This, however, was not the most important consideration. The order of April 2, as we have seen, was based on the assumption that salt would also be offered at moderate prices, since there was more than enough salt to be found in some of the producing areas. The whole trouble lay in the condition of transport. In view of this situation, all transport facilities that could be placed at the disposal of the salt industry were to be controlled, according to the views of the authorities organizing the salt supply, by the salt committees, under a national freight schedule drawn up with their active coöperation, with special regulations for water transport. It was assumed, furthermore, that the purchasing operations could be safely left in the hands of the salt industry itself, and that the intervention of the salt committees would be only optional. The permit system of transport appeared to be sufficient to ensure an adequate supply at fixed prices.<sup>4</sup>

<sup>3</sup> Cf. Chapter I.

<sup>4</sup> Thus, for example, the Donets Salt Committee, while it acted with considerable energy as an intermediary, was nevertheless confined largely to the work of facilitating transport. From July 1 to December 1, 1916, only about two million out of an annual production of more than forty million puds of

In these circumstances the Chairman of the Special Council issued, on May 11, a circular order to the commissioners directing them to regulate the prices of Bakhmut and Slavyansk salt on the basis of the price fixed by the order of April 2. He also instructed them to issue express-transport permits only to individuals and organizations guaranteeing to sell at the regulated price, and to enlist the assistance of the Kharkov Committee in case of difficulty. M. Glinka wrote at the conclusion of his circular:

In this connection, I find it necessary to point out that at the present time, when prices have been fixed in the Donets region and a special committee has been created which will enable you at any time to buy all you may require at these prices, no local price increase should be tolerated, and you are responsible for the supervision and the proper measures to make certain that the salt in your province shall be sold at prices regulated according to the fixed prices.

A similar circular order was sent out to the commissioners on May 25, 1916, as regards Crimean salt.

*Supply Organization of Perm and Astrakhan Salt,  
Under the Decree of September 16, 1916.*

More complicated was the problem of the Astrakhan salt supply. It was the custom to convey this by water, up the Volga, and the permit system and well-planned transport schedule, which played such an effective part in the regulation of railway transport, did not here apply. The Perm salt problem, as we have seen, was disposed of in a radical manner. The entire output was bought up and dispatched by the producers themselves, in their own way, but they were no longer free agents; instead, they executed the orders of the commissioners and were placed under the latter's control. Now, however, it had become necessary to settle the question definitely in some practical way for the 1917 season, as regards both Perm and Astrakhan salt. This was accomplished by the order of the Minister of Agriculture of September 16, 1916.

Besides raising the prices of Perm and Astrakhan salt, establish- salt were bought through this committee. As purchasing operations went on successfully without the intervention of the committee, its principal function reduced itself to providing loading facilities at the mines and seeing to it that there was no delay in the inclusion of loaded rolling stock in the general freight schedule.



ing for the first time a fixed price for Iletski salt, and creating for the purchase and distribution of this salt a new salt committee (at Orenburg), this order contained the following provisions regarding the salt of Perm and Astrakhan. For Astrakhan salt, prices were fixed, not only in the producing regions, that is, Lakes Baskunchak and Elton, and Vladimirovka, but also at Volga ports. These prices were found by adding to the basic prices two copecks a pud, for insurance and wastage, plus freight charges from Vladimirovka to a given port, according to a schedule of charges furnished with the order. To see to the proper distribution of Astrakhan salt outside the province of Astrakhan and to the actual observance of the fixed prices along the Volga, a special commissioner was appointed and made at the same time a member of the Astrakhan Salt Committee. Optional at the outset, the intervention of a government supply authority in the disposal of Astrakhan and Perm salt was now made compulsory. Hereafter, no purchasing operation might take place in the Perm and Astrakhan areas without the intervention of the salt committees of these areas and of the Commissioner for the Distribution of Astrakhan Salt. At the same time, all the salt produced in the Perm and Astrakhan regions had to be consigned henceforth to the commissioners exclusively. The latter were obliged to furnish in good time the data regarding the salt required within their particular areas, to attend to the regular settlement of accounts, and to see to it that sales to the public were assured at prices regulated in proportion to the fixed prices.

*Preparation of a National Schedule of Salt Transport.*

The new system outlined above made it possible to expect a supply of salt adequate to the needs of the population at a fair price, and to choose among the many different sources of supply and their transport routes those that appeared most useful and advantageous. With this object in view, a circular order was sent out to the commissioners on January 16, 1917, requesting information as to: the annual salt requirements within each province; the amount of salt that could possibly be delivered by water during the navigation season of 1917 from the areas of Astrakhan and Perm; ports of destination; maximum amount required between May, 1917, and April, 1918, after due allowance for stocks still on hand in each province; and, lastly, how much salt, whence, and by what routes,

should be dispatched by rail if water transport proved unavailable. To collect the necessary data, the commissioners were advised to call local conferences of competent persons. For their preliminary guidance, they were furnished with statistical data on the quantities of salt dispatched, received, and consumed in each province and territory of Russia during the three-year period, 1912-1914.

In working out the salt transport schedule, as we have seen, the intention was to unburden the railways by conveying as much as possible by water. For this purpose it was proposed to try to extend as much as possible the use of Astrakhan salt, which could be easily produced in larger quantities. Measures were already being taken to assure facilities for an increased traffic up the Volga.

#### *Measures of the Provisional Government.*

The transport of Astrakhan salt in 1917 began when the Revolution had already occurred, but, in spite of the general disorganization engendered thereby, it proceeded fairly well and smoothly, largely because of the preliminary measures that had been previously carried out. To bring system and unity into this complicated business, the Minister of Agriculture on March 8, 1917, issued an order raising the fixed prices for Astrakhan salt in the area of production and introducing certain changes in the organization of the supply. The Astrakhan Salt Committee now retained only the following functions: it ascertained the salt requirements of the city and province of Astrakhan, organized the distribution of salt among the fisheries and the population, and determined the prices to be fixed for Astrakhan salt. The duty of the committee to intervene in the purchasing operations was transferred to the Commissioner for the Distribution of Astrakhan Salt. He alone could now give orders for salt and through him alone could accounts be settled with the salt producers.

Among further measures taken by the Provisional Government, we must note the establishment of fixed prices for the salt of Semipalatinsk and Odessa<sup>5</sup> by the order of March 8, 1917. The general principles of the salt organization were applied also to these two salt districts, but with this difference that special commissioners were appointed in them, instead of salt committees.

<sup>5</sup> Hitherto, these regions had been left without special attention, in view of their relatively slight importance.

On April 25, as we have already seen,<sup>6</sup> the salt committees were abolished and salt commissions under the provincial food supply committees took their place. To the corresponding commission were also transferred the principal functions of the Commissioner for the Distribution of Astrakhan Salt. All that was left to the latter was the supervision of the distribution of the salt over the ports and tributaries of the Volga River, in accordance with the schedule framed by headquarters (Order of the Ministry of Agriculture of May 1, 1917).

By an order issued on June 17, 1917, prices were raised for Perm salt, freight rates from the salt fields to the ports of the Volga, Kama, Vyatka, and Belaya rivers were increased and in some instances newly established. All accounts for purchases of Perm salt had to be settled through the Perm provincial food supply committee, for all purchasing operations in respect of Perm salt were now in its hands. Lastly, by order of the Ministry of Agriculture of August 10, 1917, the post of the Astrakhan salt commissioner was abolished altogether, while the place of the Semipalatinsk salt commissioner was taken by a salt commission organized under the Semipalatinsk food supply committee.

## II. MEAT

### *Conditions of Meat Supply during the First Year of the War.*

From the very outset of its proceedings, the Special Council was obliged to devote considerable attention to the problem of meat supply. The War had brought about a marked increase in the consumption of meat. Millions of soldiers who in civilian life each consumed an average of 0.3 puds of meat a year, were now allowed up to 6 puds. On the other hand, increased prosperity, due, in a measure, to the prohibition of alcoholic liquor, increased wages, and war-time allowances and doles, resulted in a heavier demand and a reduced supply of meat. The failure of the grass crops of 1914 in large sections of Russia outside the black earth belt compelled cattle owners to slaughter more than ever. The enemy invasion of the western parts of the country closed an important live stock market, while the purchases of cattle brought with them by the refugees to the

<sup>6</sup> Cf. Chapter I.



interior afforded only temporary relief, for millions of cattle from the western provinces were lost. Lastly, the utilization of the live stock supplies of Siberia and Mongolia proved exceedingly difficult, and to some extent absolutely impossible, on account of the lack of transport facilities.

In these circumstances, practically the entire supply of the army and the civilian population had to be based upon the resources of European Russia alone; and this, in view of the vast demand and limited supply of live stock, made it urgent to consider with the utmost care how cattle could be purchased without imposing an excessive burden on the State Treasury, not to mention the fact that the very foundations of Russian stock farming and agriculture in general were directly menaced. Measures had to be devised for cutting down as much as possible the demand for meat and for collecting the necessary quantity with the least injury to the interests of agriculture. The steps taken to reduce the consumption of meat have already been described elsewhere in this volume,<sup>7</sup> so that only organization of supply requires to be discussed here.

#### *Requisition of Cattle.*

As it had by this time become evident that a sufficient supply of live stock could be obtained only with difficulty, the Ministry of Agriculture decided to abandon the method of direct purchases of cattle by the agents of the High Commissioner for Meat Purchases. Since direct requisition of cattle from the farmers was obviously inevitable,—a matter that would require a very thorough knowledge of local conditions and extreme prudence and care, especially in distributing the burden of requisitions as evenly as possible among the inhabitants—the Special Council thought it best to entrust the operation to the zemstvos.

This proposal was discussed in connection with the problem of regulating army requisitions, during the visit of the Minister of Agriculture to the headquarters of the Supreme Commander-in-Chief. The proposal that the existing system of free purchases, which was being replaced to an increasing extent by desultory requisitions, should give way to the principle that cattle should be furnished according to the economic situation of each individual owner of live stock, was viewed with much favor. Equally well re-

<sup>7</sup> Cf. Chapter IX.

ceived was the suggestion that the zemstvos should be enlisted in the work of distributing evenly among the farmers the burden of supplying live stock. While the conference at the headquarters of the Commander-in-Chief approved such an arrangement only for the provinces included in the war zone and subjected to army requisitions, the Special Council, on the other hand, favored the inclusion of the entire population of the empire in a compulsory scheme of cattle deliveries for the needs of the army, on an equal basis, and advocated the framing of an appropriate plan for the compulsory purchase of cattle by the zemstvos or other organs replacing them.

*Ruling of the Special Council.*

A detailed plan for the territorial allotment of cattle deliveries for the needs of the army was now prepared by the Ministry of Agriculture. The zemstvos were instructed to purchase their allotted number of cattle and were empowered to requisition it if necessary; pedigreed and thoroughbred cattle, and calves under eighteen months were exempt from requisition.

At the same time the Special Council resolved: (1) to request the zemstvos to prepare a schedule of fixed prices for live stock and meat, to be applied in the event of requisition being necessary, and to report the number of full-grown cattle which they thought it possible to remove without serious damage to agricultural interests in their respective provinces;<sup>8</sup> (2) to include the meat requirements of Petrograd and Moscow in the total number of cattle to be furnished under the levy; (3) to grant to zemstvos the exclusive right to control the transport of cattle and meat from their respective territories and provinces; (4) to keep records, through the control exercised by the zemstvos, of cattle in the provinces immediately adjoining the front, to be used by the army only in the last resort; and (5) upon the conclusion of the cattle census, to correct accordingly the schedules based on the zemstvo reports.

In the light of the data available, the Ministry of Agriculture ordered a preliminary levy to be made in the various provinces and

<sup>8</sup> In Siberia, where there were no zemstvos, this was to be done by special commissions, presided over by the governors, and composed of local representatives, including officials of the Immigration Department and representatives of agricultural societies.

requested the zemstvos to proceed with the purchase of live stock. On February 27, 1916, the Ministry sent the regulations governing the deliveries of live stock to the zemstvos; these regulations were drawn up in accordance with the resolutions of the Special Council above referred to. The zemstvos thereupon began their purchasing operations, at prices fixed by themselves, making extensive use of their right to requisition and to order embargoes on the transport of live stock from one province to another.

There was, however, a deplorable lack of coördination in all these measures, with the result that the meat supply of important cities was soon disorganized, also that of establishments working for national defense. Accordingly, on April 4, the zemstvos were instructed to remove at once, pending a more complete organization of the purchasing operations, all embargoes that they had imposed. This order from the Ministry of Agriculture was received with a great deal of opposition from the zemstvos. It remained in force, however; but it made still more urgent the problem of a definite plan of purchase.

The prices recommended by the zemstvos at the close of March and beginning of April, 1916, for their cattle purchases were discussed, on April 6, by a commission of the Special Council with a view to their coördination. This was an indispensable condition of proper purchasing operations on a national scale, for only in the absence of any considerable differences of price would it be possible to prevent wholesale transfers of live stock to areas where higher prices prevailed. As it was exceedingly difficult to establish such coördination without a personal exchange of views between representatives of the zemstvos, a conference was called, on May 4, which was attended by delegates from the organizations of local government engaged in cattle purchases. This conference was to revise the prices fixed for cattle and meat products, until the end of the year; it was also to discuss the embargo question.

#### *Rules of May 12, 1916.*

In conformity with the views expressed by this conference and adopted, practically without any changes, by the Special Council, the following methods of purchase were laid down by order of the Ministry of Agriculture issued on May 12, 1916.

Prices were fixed for large horned cattle and for sheep until



January 1, 1917, and for hogs until May 1, 1917. These were regarded as maximum prices and held to be obligatory in respect of all purchases. Purchasing operations were entrusted to the zemstvos. Should there be an inadequate voluntary offer of live stock at the fixed prices, the zemstvos might order requisitions at these prices. In that event, it was left to the discretion of the zemstvos to determine what categories of cattle should be exempted from the requisitions. Information regarding especially valuable stock farms was to be furnished to the zemstvos by the Department of Agriculture, to enable the zemstvos to hand over such cattle to the control of the Department in case requisition could not be avoided. The classes of live stock exempt from requisition, as provided by the orders of the Ministry of Agriculture and confirmed by the decision of the Special Council were not necessarily to be exempted by the zemstvos, but were merely indicated as *desirable* exemptions. Farms having only one head of adult cattle were to be exempt from requisition, except in rare emergencies. The method of apportioning the cattle levy within each province was left to the discretion of the zemstvos or their substitute organs. The zemstvos were also authorized to lay embargoes on the movement of cattle from and to their respective provinces and territories, and they might release cattle in this respect by their own authority, at the request of persons and institutions concerned. To preserve large horned cattle as far as possible, sheep and hogs might always be substituted, without any limit to the proportion that these formed of the total live stock allotment. The meat supply for Petrograd and Moscow, the Donets and other mining regions, and factories and mills working for national defense, was to be provided by the Ministry of Agriculture out of the total cattle allotment of the zemstvos.<sup>9</sup> The supply of other urban communities and of the rural districts was not included in the compulsory levies, being left to the initiative of the zemstvos themselves within their own territories, under the general control of the Ministry. Every purchase of cattle, whether by an individual or institution, had to pass through the control of the local zemstvo, at prices not above those prescribed, and in accordance with the regulations outlined above.

<sup>9</sup> The minimum amount of meat required for Petrograd and Moscow and the working population was calculated on a basis of 8 zolotnik (1.2 ozs.) a head.

*Extension of Fixed Prices to Siberia and Turkestan.*

These regulations did not apply to Siberia and Turkestan, where prices were specially fixed on September 19, 1916, for large horned cattle, hogs, and sheep bought by the commissioners of the Ministry of Agriculture. This enactment concentrated in the hands of these officials all purchasing operations for the army units stationed in the rear, for the cities, and for establishments working for national defense. Siberia was now no longer regarded as an open market. But, while granting to the commissioners of the Ministry of Agriculture the right to requisition cattle, meat, and bacon, fixed prices were established by the Special Council for cattle only.

In this respect, the order of September 12 was amplified by the orders of October 30 and 31, 1916. The first of these established fixed prices in Siberia and Turkestan for salted beef, mutton, and pork, but left the actual fixing of the prices to the discretion of local conferences presided over by the commissioners of the Chairman of the Special Council, to be attended also by the commissioners of the Ministry of Agriculture and the representatives of the State Controller.<sup>10</sup> The second order established and defined fixed prices for frozen beef and mutton, fat beef and mutton, and for bacon, in Siberia and Turkestan. Thus fixed prices were established for all meat that could possibly be transported from Siberia and Turkestan.

*Changes in Prices and the New Levy.*

On November 29, 1916, the prices fixed for live stock in European Russia were altered, and on January 7, 1917, prices were fixed also for pork and bacon, in order to facilitate the purchase of these products by the commissioners of the Ministry of Agriculture. By an order of January 17, 1917, prices for cattle and bacon were again fixed for the new year, but the methods of purchase were left unchanged. A temporary levy was instituted for the months of January and February.

*Measures of the Provisional Government.*

Further measures for the regulation of the meat problem were taken by the Provisional Government. On April 9, 1917, the State

<sup>10</sup> This was a rare instance of the delegation to a local body of the authority to determine the rates of the fixed prices.

Food Committee passed a resolution in favor of drafting a new plan for the meat supply of the nation, and of revising the provincial cattle and meat allotments for 1917. In its June session the Committee decided upon the following measures.

The entire consumption of meat was found to be in need of regulation, and it was thought necessary to include in the supply schedules: (1) the army, all military organizations, railways, Petrograd and Moscow; (2) other cities, urban areas, and manufacturing and mining regions; (3) rural areas and even separate groups of the population who depended upon meat from other districts. For purposes of delivery and distribution, the whole meat allotment of each province was divided into two parts: one, controlled by the Ministry of Food Supply, was for the needs of the army and military organizations, Petrograd and Moscow, and regions without their own meat resources; the other, for the needs of the urban and working population of the area, local military forces, and hospitals, was left in the hands of the local food supply committees, but under the general control of the Ministry of Food Supply. The meat levy was introduced in 47 provinces and territories; in the rest of the country the meat levy, and, in this connection, requisition, might be ordered by the Ministry of Food Supply at the request of the local committees, if ordinary purchasing methods should fail to produce the quantities required.

Next, a project of new fixed prices for 1917 was adopted, together with a plan for the proper allotment of all meat and bacon coming under the control of the Ministry of Food Supply. To restrict the consumption of meat, the Ministry was asked to prepare without delay legislation for the purpose of setting up throughout the country a ration card system for the distribution of meat, so that it might be inaugurated by August 1, 1917, in those sections of the country where the meat levy was in operation. The rations were to be calculated on the following scale: (1) troops at the front, two and a half Russian pounds<sup>11</sup> of meat a week, (2) troops in the rear and at points in the interior, one and a half or two pounds, according to their fish rations, and (3) all other classes of the population, one pound. Free trade in cattle and meat was to be forbidden in areas where the levy of meat was introduced. All cattle for slaughter, with the exception of thoroughbred animals

<sup>11</sup> See p. 169, n. 8.



and draught oxen indispensable on the farm, and all meat, with the exception of that required for the feeding of the rural population of the area, were to be sent by the owners and breeders directly to the receiving commissions of the food supply committees, or might be passed on through coöperative societies, other unofficial organizations, or dealers specially authorized for this purpose by the food supply committees.

*Orders of July 20 and June 16, 1917.*

In conformity with this decision of the State Food Committee, an order was issued by the Ministry of Food Supply on July 20, 1917, fixing the prices and quotas of the levy of meat and lard for each province and territory. In all cases, the collection of the supplies was left to the provincial food supply committees. As for the remaining provisions of the State Food Committee's resolution, it was no longer possible to carry these out under the conditions then prevailing.

Among other measures taken by the Provisional Government mention should be made of the order of June 16, 1917, to preserve thoroughbred and dairy cattle. The requisition of registered, pedigreed cattle without the sanction of the provincial food supply committees was prohibited. Such stock was to be reckoned in the general levy, but might be replaced by other breeds. In case the owners should not take advantage of this privilege, or if it should be impossible to preserve such herds, the thoroughbred cattle were to be requisitioned for the needs of the State. To assure an adequate milk supply for the cities, all dairy cattle were exempted from meat requisition in suburban areas, the latter to be defined by the local food supply committees in consultation with municipal, zemstvo, and agricultural associations.



## II.

### FOOD PRICES AND THE MARKET IN FOODSTUFFS

By S. S. DEMOSTHENOV





# CHAPTER I

## PLAN OF INVESTIGATION

### *Objects of Inquiry.*

THE economic principle that the price of a commodity is determined by the ratio between the effective supply and the effective demand, must be infused with some concrete, definite contents if we are to apply it to the conditions of the war-time market in Russia.

In other words, we must examine all the factors which at that time influenced demand and supply. But if our inquiry is to be orderly and systematic we must arrange these factors in a definite scheme which shall be applicable to the war-time conditions and shall take into account the peculiar features presented by the Russian market in foodstuffs. Such a scheme we present further on. It is the outcome not of any preconceived ideas, but of a careful investigation of actual facts. We begin our analysis with those factors which influence the volume of the "effective" supply in the market.

### *Supply and Production.*

The supply actually present in the market is based ultimately upon production. But it is not determined exclusively by the volume of production.

If we want to obtain a correct view of the changes that occurred in supply we must, first of all, make a very careful analysis of the various factors that determined the volume of production in the war period. We must also take into account the stocks left over from each preceding period. Whatever may determine the volume of production in a given period, the question of whether the volume of supply actually reaches the limit imposed thereby depends upon a number of other conditions.

### *Consumption by Producing Establishment.*

In the first place, the consumption of the establishment engaged in the production of the commodity is an exceedingly important

consideration, especially where the product is intended chiefly for the gratification of home requirements. After we deduct the producer's consumption from the total output we obtain either a positive or negative quantity. In the latter case the enterprise concerned figures, not on the side of supply, but as a factor of demand, so as to obtain what it lacks. However, as we are here dealing only with the problem of supply, such a case is, of course, without any interest for our inquiry. It is only when the producer's consumption falls short of his production that an enterprise may figure on the side of supply.

In the case of a few commodities, again, we may entirely ignore the matter of consumption by the producer, either for the reason that it forms only an inconsiderable proportion of the whole output or because the commodity in question cannot be used by the producer in its original form, as for instance if it requires a finishing process at some other establishment. But in food production, consumption by the producing establishment is nearly always a most important factor, particularly in the case of cereals, meat, potatoes, etc. Therefore, to answer the question of what factors influence the effective supply, we must ascertain not only the conditions of production, but also the state of consumption by the producer.

### *Supply and Consumption.*

In any given state of production the supply may be either small or large, all depending upon the volume of consumption. But consumption itself, affecting, reciprocally with production, the supply and, consequently, prices, is already in part a result of price conditions. When the price of the products of an establishment rises, this establishment is in a position to sell less for the satisfaction of its own needs in other goods and to use more of its own products, provided, of course, that its own demand for what it produces has not been heretofore fully satisfied, and provided, furthermore, that there has been no change in the requirement of such an establishment for those other goods. A similar result may follow from a general increase in the earnings of the given enterprise, even if it is due, not to any advance in the price of this particular product, but to other circumstances (large extraneous earnings, high prices for other articles produced by the same establishment, and similar causes).



Let us, for the present, turn aside from our consideration of these complex interactions and take it for granted that a given establishment uses its own products for its own wants. It would be perhaps more correct to speak of its "intention to consume" rather than "consumption," in view of the fact that the retention of that amount of products which is set aside for consumption by the producer takes place in advance of actual consumption. We may even speak of a "latent demand" for its own products by the given enterprise. This demand does not appear in the market directly, nor does it have a direct share in the determination of prices—this is its first point of difference from the "open," or visible, demand. Another difference is that it does not necessarily always slacken with rising prices; sometimes it may even increase under these conditions. The third and last difference is that it may be satisfied at any time; or, to put it more precisely, so long and in so far as it may be satisfied by home production, it remains a latent, invisible demand.

#### *Hoarding of Supplies by Producers.*

It thus follows that the effective supply is influenced by the following factors: (a) volume of production and (b) volume of latent demand (that is consumption) by producers themselves. But this is not all. In the case of certain commodities, especially foodstuffs, which are produced mostly by small, consuming establishments, hoarding by the producers may play a very important part, and for a lengthy period. It is therefore quite conceivable that the market will receive less than that amount of goods which, with a given volume of production and of latent demand (consumption by the producer), might have gone to the market and which we shall term the *potential supply*.

Hoarding is an exceedingly complicated phenomenon and usually defies satisfactory analysis and explanation. Sometimes it may be due to fears for the future on the part of the producers, as they may doubt the possibility of satisfying their requirements during the next period of production; thus, signs of an impending crop failure may lead to very extensive hoarding. Again, there may be other causes, often puzzling and impossible to determine; there may be a very abundant supply on hand, yet the producers think it necessary to hoard, even though no signs of disaster are visible for fu-

ture production. War-time experience in Russia shows that such a situation is also possible.

Upon closer analysis we find that hoarding is sometimes a result of the price movement, that is, of rising prices. When prices are mounting rapidly, the producers delay selling and prefer to wait for a further rise, even though they may be vitally interested in disposing of their goods as soon as possible. It is somewhat difficult to ascertain definitely that the two phenomena are thus connected, for they run parallel and, at first sight, we have just as much reason to regard hoarding as the cause of the rising prices as to consider the rising prices the cause of the hoarding; all the more so since the student is impressed with the reciprocal effects of these phenomena as soon as they are clearly elucidated.

However, when it is possible to isolate the original causes of rising prices and to attribute them either to some revolutionary upheaval in the province of demand or to disorganization in the mechanism of the market itself, for instance, disorganization of transport, it may become clear that it is precisely the advance in prices that furnishes the motive for hoarding. We may note, in passing, that the state of mind of our hoarding producer is very unstable: every step in the direction of price reduction or, in any event, price stabilization, will induce him to change tactics and hasten the disposal of his goods. Price regulation, therefore, might in a case like this exert a powerful and beneficial influence upon the market, provided the regulation were done in a rational manner.

#### *Another Form of Hoarding.*

Besides the forms of hoarding above discussed, there is still another kind, the real causes of which are even more baffling. Sometimes the producer remains entirely indifferent to market conditions. Rise and fall of prices alike have apparently ceased to interest him altogether, he simply turns his back upon the market and persistently hoards his products. In establishments that consume part of their produce, with narrow surplus margins, tactics like these may be followed for years without any particular harm to the producer. It is interesting to note in this connection that in these conditions it is much easier to overcome reluctance to sell by increasing rather than by stabilizing prices. It is then evident that hoarding is not due to the rise of prices, but to the loss of the incentive to

sell. Only a price sufficiently high to impress the mind to an unusual degree may stimulate selling, but this, again, only so long as money retains its attraction.

At first sight, loss of inclination to sell appears puzzling, especially when it assumes a mass character. But as soon as we stop to consider that the supply of any kind of a product is dependent upon, or connected with, the supply of some other product, we approach an explanation of the hoarding. A commodity is always offered in the market with a view to exchange, ultimately, for some other commodity. The latter commodity may be either a technically indispensable means of production or an object of consumption. If it is a means of production, a dwindling supply of it will result in curtailment of production and, consequently, supply of the goods that it serves to produce. Here, then, it is not accumulation and hoarding, *per se*, which is the original cause of the shrinking market supply, but the break-down of the productive process. If on the other hand it is an object of consumption, the shrinking market supply of it may have no effect at all upon the other goods, so far as their production is concerned. It may, however, cause a loss of interest in selling them, resulting, consequently, in an accumulation of such goods, provided this is feasible from the standpoint of the supply and of the nature of the goods. In certain cases the loss of interest in their sale may even exert its influence upon the volume of production in the direction of curtailment, but this will not be due to the fact that production will have been made difficult technically, but to the fact that there will have been a loss of interest in any increase of production beyond the amount required for the producer's own consumption.

We thus see that the supply of one commodity may be reduced under the influence of the supply of some other commodity. The case in which the absence of this other commodity renders it technically impossible to produce and supply a given commodity is of no immediate interest to us, as it belongs to that class of phenomena which have a direct effect upon the volume of production. Our purpose at this stage of the inquiry is to analyze those causes which, with a given volume of production, account for the shrinking supply of this or that particular product. For this reason, only that case is important to us here in which the market shortage of the goods we are concerned with—although traceable directly to



the disappearance of other goods—has not been due to the fact that those other goods are the indispensable means of their production, but to the fact that the selling of the goods we are concerned with here is stimulated exclusively by the desire to acquire those other goods.

To this we have to add that, if certain establishments are desirous of employing improved means of production (for instance, iron instead of wooden plows), the absence of such commodities in the market—even though it may not entail any curtailment of the existing volume of production—means undoubtedly that there will be a lessened interest in the sale of available stocks. In all instances where inclination to sell slackens, we observe merely a refusal to sell immediately the surplus that normally goes to market, and not an immediate curtailment of production.

### *Effective Supply.*

When we consider the various forms of hoarding, it becomes clear that the effective market supply may fail to coincide not only with production, but also with the potential supply (that is, production minus the latent demand). In a study of price movements it is useful to ascertain to what extent the level of prices may be justified by the state of production and potential supply, as this permits us to isolate the effect of market disturbances upon the supply and thus to ascertain their force more accurately.

### *Consumption Demand.*

In considering the problem of demand, we go back ultimately to the consumer, the one who either does not produce a given commodity at all or produces it in an insufficient quantity. Hence the extent of wants and the desire to satisfy these wants by the acquisition of the necessary goods in the market must here form our point of departure. But a mere desire to buy these goods is not sufficient: money must be available for the purchase. This brings us to another factor of demand—the income of the consumer. But it is not so much the amount of the gross income as the part of it that is available for the purchase of the given commodity that is important in this connection. We may term this the consumption resources. The extent of these resources can be determined only by a complicated reckoning, taking into consideration existing prices

and striking some average ratio between the sum of all wants and the total income. Disregarding for the time being this chain of interdependent factors and assuming the consumption resources to be a definite quantity, we shall be enabled to arrive at something like a fair idea of the extent of the demand.

We still lack, however, one element necessary for a full definition of demand, since the consumption resources (money) alone cannot yet give the consumer a basis to determine the volume of his purchases. For this purpose, one must know and reckon with existing prices of one commodity or another. Therefore, given certain definite consumption resources, the acquisition of more or less goods will depend upon the level of existing prices. We may therefore say that demand is that amount of goods of one kind or another which one strives to obtain in the market, taking into consideration the consumption resources available and the existing level of prices. As we are speaking here only of the demand of the consumer, ignoring the middleman, we may apply to this form of demand the term *consumption demand*. The extent of this demand will obviously be determined by the desire to *use* these commodities, and not by the intention to place them again on the market, with a view to earning the difference in price.

Changes in the consumption demand for any given article may be due to a variety of causes, such as: (1) changes in the number of consumers; (2) fluctuations in the gross income of consumers, affecting the amount of money available for the purchase of this or that commodity; (3) changes affecting the entire range of wants (the appearance of new wants and the cessation of others), resulting either in an increase or decrease of the resources available for the purchase of the given commodity; and (4) changed prices, for the given article, as well as for others, since a change in the price of these others may either increase or decrease the sum of money set aside for the purchase of the given article.

#### *Ordinary and Extraordinary Consumption Demand.*

It should be borne in mind also that a veritable revolution may occur in the volume of the consumption demand as a consequence of one highly important factor which was often observed in the course of the War. Under ordinary conditions the demand for this or that particular article of food is intended to meet requirements

for certain definite lengths of time. The demand is thus regularly renewed. Meat, for example, is usually bought from day to day, sugar for a period of three to four days, flour likewise, etc. Naturally, these periods of time will be found to differ according to locality, the form of trading (periodical or continuous sales) and general customs. This we shall term the ordinary consumption demand. But there are times when the consumer suddenly strives to lay in supplies for longer periods. He then proceeds to hoard supplies, provided the nature of the commodity makes it feasible. The extra demand made upon the market under these conditions we shall term the extraordinary consumption demand. In course of time this demand may become permanent. In any case, the extraordinary demand made upon the market produces something very much like a revolutionary upheaval in the consumption demand as a whole, increasing in tension and volume, while the rising tendency in prices may become permanent if supply will not keep pace with demand.

Consumption demand is not identical with consumption. The difference is that between the amount of goods which it is intended to acquire and the amount actually acquired. This difference is due to the fact that the intended acquisition is based upon prices existing at the moment, while the actual purchase is based upon different prices. This brings us to the question of the relation between demand, prices, and consumption; and we may term the latter the realized demand.

#### *Realized Demand.*

The point has been stressed already that every demand has the existing prices as its basis; this, however, does not mean that existing prices must determine absolutely the demand arising on the basis of them. Changes in the wants and in the consumption resources will also influence the extent of the demand. According to these changes, after the existing price level has been fixed, the demand during the succeeding period may either be in excess of or fall below the available supply (we ignore here the case where demand and supply are equal, as of no interest to us). Assuming supply to be unchanged, even though it is subject to change, so as to isolate the influence of fluctuating demand, we are in either case confronted with the inevitable appearance of new prices.

In the first case, when demand exceeds supply, competition



among the buyers, and the desire of sellers to profit by it, will tend to drive the price upward. The increased price will paralyze and render inoperative that part of the demand which figured in the market only while the old price existed and it will make it difficult for this part of the demand to assert itself in the future market to its former extent. The rise in the price is, therefore, based upon the need of paralyzing (with the given volume of supply), for the future, that "excess" of demand which was seen to exist under the old price.

In the second case, competition of sellers and the desire of buyers to take advantage of this competition will result in a reduction of price. This shows that there was a "deficiency" in the demand upon the market under the old price, and it creates a "supplementary" demand, facilitating its operation also in the future. The price thus reduced will not paralyze that part of the demand which arose on the basis of the former price, but, on the contrary, stimulate further demand.

It will be clear from the preceding paragraphs that prices are of the nature of a mobile regulator of supply and demand; its movements are caused by the divergences between supply and demand, but at the same time it strives to overcome these divergences. In any case it is manifest that not all of the demand upon the market can always be realized at a given price, for this demand may result in a rise in prices. Conversely, sometimes not only the entire market demand, but even more, may be realized at a given price, as the original extent of the demand may cause prices to fall. A difference is thus seen to exist between consumption demand and consumption in exact accordance with our definition of these terms: demand is the endeavor to obtain in the market whatever amount of products it is intended to acquire at existing prices, whereas consumption is that amount which is actually acquired. The difference between the two amounts may be due to the fact that there has in the meantime occurred a change in prices. If we bear in mind also the fact that price changes tend to equalize supply and demand, that is, to leave in the market, as an effective demand, precisely that demand which may be satisfied completely by existing supply, we shall have to admit that consumption shows a general tendency to coincide with supply. Hence, if consumption demand is confused with consumption, and supply is thus contrasted with consumption (for a given

period of time), to explain the movement of prices, it will be entirely impossible to ascertain the causes of price changes.

None the less, statistics of consumption may sometimes furnish a starting point for a calculation of probable consumption demand and thus help to explain price movements. Thus, if we know the peace-time volume of consumption of a certain commodity, we may assume that there was also at the beginning of the War a tendency to demand approximately the same quantity. Introducing necessary correctives into this assumption, on the basis of information regarding income fluctuations, population changes, and the degree of elasticity of a given commodity, which depends on the nature of the wants it is to satisfy, we may form an approximate idea of the consumption demand and its changes during the War.

### *Function of Middlemen.*

We shall here conclude our discussion of supply and demand and consider next the influence of the middleman upon supply and demand.

The middleman plays a dual part in the market. To the producer he acts as the representative of the consumer, and to the latter he is the representative of the former. To each of these two parties he represents, if we may so express ourselves, a "duplicate" of the other party. The demand presented by the middleman, therefore, is merely a reflection of the consumer's demand; he expresses, as it were, the indirect demand of the consumer, the indirect consumption demand. The supply offered by the middleman reflects the producer's supply; in other words it is the indirect producer's supply. This is the case under normal conditions, when the middleman acts merely in the capacity of transfer agent between producer and consumer.

There are, however, certain conditions when both the supply and demand of the middleman are affected by special factors that tend to isolate them, as it were, from the consumer's demand, as well as from the producer's supply, which normally regulate them. This may occur when middlemen resort to hoarding of supplies. In a case like this the demand they present to the producer will tend to exceed in volume, as well as intensity, the consumer's demand, while, on the other hand, the supply which they offer will tend to fall short of the supply of the producer. Let us call the aggregate of

business transactions between producer and middleman the production market, and the whole complex of relationships between middleman and consumer the consumption market; let us, next, assume that the middleman is hoarding supplies; the result will then be a demand upon the production market in excess of the consumption demand, and a supply in the consumption market below the supply available in the production market. The consequence will be that the two markets will show an ever increasing disparity, demand outdistancing supply, with rising prices in both markets.

The situation created by these tactics of the middlemen may also affect the producers' supply and the consumers' demand. Rising prices in the production market, caused by the heavy buying operations of the middlemen, will induce the producers to retain supplies in the hope of further increases of price, in other words, to diminish the effective supply, as compared with the potential supply. On the other hand, diminishing deliveries of goods in the consumption market may induce consumers to stock reserve supplies, for fear of being left without any at all, that is, they may result in an abnormal consumption demand. It is patent that these secondary consequences of the tactics of the middlemen, under these conditions, must lead to further complications and continued advance of prices, even though the potential supply and ordinary consumption demand would not seem to justify such a state of affairs.

#### *Condition of the Market as a Whole.*

When we look into the condition of the market as a whole, disregarding the distinction between production and consumption markets, we find that the potential supply no longer regulates completely the actual supply to the market; besides, ordinary consumption demand no longer regulates the actual demand. The actual supply will be less than the supply that would be possible under the existing conditions of production, the latent demand of producers, and the stocks in the hands of middlemen. In other words, actual supply will be found below potential supply, while actual demand will be found above ordinary consumption demand, and this not only because of the extraordinary consumption demand, but also because there is now a speculative demand by the middlemen for hoarding purposes, exceeding both ordinary and extraordinary consumption demand. Since prices are dictated under the influence of the ratio



between actual supply and demand only, it follows that all the phenomena here discussed necessarily tend to drive prices upward. And it is at this stage that the public begins to complain of profiteering. In pointing to profiteering and clamoring for its suppression, the public simply emphasizes the fact that the ratio between the potential supply and the ordinary consumption demand is such that it does not justify the price increase, and there must be a restoration of that normal state of affairs in which potential supply and ordinary consumption demand shall be free to determine and regulate the actual supply and demand.

We have formulated here the concepts of potential supply and ordinary consumption demand not because we regard them as something with which actual supply and demand must coincide, but simply that they may help us in our analysis of complex factors and elements influencing actual supply and demand. With the aid of these terms it is possible mentally to isolate the influence exerted upon prices by market disturbances and thus to measure their importance and effect upon supply and demand. Besides, there is some basis of fact for these terms, since under normal conditions it is precisely the potential supply that represents the actual supply, or, more properly speaking, determines it completely. Similarly, ordinary consumption demand usually determines actual demand (in its two forms: first, consumers' demand; second, indirect demand by the middleman, who is only the duplicate of the consumer, as has been pointed out).

#### *Conditions of Accumulation of Supplies by Middlemen.*

It is hardly necessary to remind the reader that the accumulation of supplies by the middleman is possible only if he has adequate financial resources or effective support by banking institutions. It is obvious, too, that the actual process of accumulation is influenced by a number of factors other than financial. Where the commodities in question are abundant and the consumers' demand is not heavy, such tactics would be entirely impossible and, if persisted in, would result very soon in the collapse of the whole structure of speculation. Speculation, therefore, is practicable only where conditions are favorable to it, giving a solid basis for the speculators to stand upon. The speculator, grasping what seems to be a fa-

vorable marketing opportunity at some future date, endeavors merely to anticipate it for his own profit.

This leads to the question: What are the conditions that will induce the middleman to resort to these tactics? First of all, the incentive may be furnished by a scarcity making itself felt in this or that particular commodity. When production and potential supply show a tendency to decline, the moment is opportune—provided prices become firmer at the same time—for a concentration of the supply in the hands of the middlemen, as well as for a reduction of the supply of these commodities to the consumer. In this case the middleman's action brings about prematurely, as it were, a condition in the market that would otherwise come about at a later time and more gradually.

But the same thing may occur when there is some sudden upheaval in the province of demand, either through the appearance of some new consumer presenting an unusually heavy demand that is both urgent and persistent (for instance, a large army), or as a result of a sudden increase in the demand of the regular customers. If at the same time there appears no sign of increase on the side of potential supply, and especially when there is absolutely no chance of such an increase taking place, the middleman will naturally be anxious to take timely advantage of the situation he foresees.

#### *Dislocation of Producing and Consuming Markets.*

There may be cases, however, where the specific causes that explain, at least partially, the tactics of the middleman do not seem to be operating on the side of demand or of supply. Speculation then acquires a rather puzzling character, such as was frequently pointed out in the official reports during the War. But on closer scrutiny it will be seen that it is dislocation between production markets and consumption markets that enters here as an independent factor stimulating speculation. This kind of dislocation arises when commodities offered by the producer are prevented from reaching the consumer, because of obstacles that it is not easy to overcome. It is not that the commodity in question is concealed by the middleman, but that there is a general impossibility of conveying it from the locality of purchase (production market) to that of sale (consumption market), which the middleman himself is powerless to overcome. Consequently, we are here confronted with a con-

dition which prevents, so to speak, a commodity from reaching its *full* maturity, because we cannot regard a commodity quite ripe for marketing as soon as it is technically finished, but only after it has successfully been transported to the place where it is wanted.

*Two Instances of Dislocation.*

Difficulties in the conveyance of goods to places of sale may be caused either by the state of transport (insufficiency or disorganization) or by special, extraordinary measures (embargoes, etc.). Leaving the latter out of consideration here, we confine ourselves to a few paragraphs on the influence that inadequate transport facilities exercise upon the machinery of the market and of prices. We may conceive of two cases: (1) absolute inadequacy of transport (completely destroyed), and (2) relative inadequacy (functioning irregularly and incapable of conveying all the required goods to consuming localities). In the first case we shall find the market split into numerous local markets subject to their own laws of supply and demand. The unequal character of the prices is then a conspicuous feature. In the consumption markets there will be an extraordinary rise, and in the production markets, on the contrary, prices will drop to an extremely low level. In the second case we observe rising prices in all markets throughout the country, even though in varying degrees. For the decline in the conveyance of goods to consumption markets involves a decline of stocks in hand, or, at best, an unequal supply, in these markets.

Curtailement of supply, or unequal supply, however, and the resulting advance of prices will bring in their train further consequences, namely, an extraordinary consumers' demand, the desire to stock supplies in excess of the normal amount, and hoarding by middlemen. Needless to add that these conditions react upon prices, tending to raise them even more.

Rising prices in the consumption market must inevitably affect prices in the production market so long as the bond between the two markets is not completely severed. Observing the advance of prices in the consumption areas and expecting extraordinary profits if they manage to transport their goods to these areas, the middlemen proceed to buy heavily. This speculative business may assume extraordinary proportions, especially as there is always the opportunity of recouping all expenditure by selling part of the stocks



to the army, at vastly increased prices. So long as all supplies cannot be conveyed to the consuming localities, and so long as prices continue firm, there will remain a strong incentive for the middleman to buy heavily. The only limit to this kind of business will be that of the available amount of operating capital, or credit. The heavy demand from the middleman, which raises the prices, is not without effect upon the supply offered by the producer: the latter will now defer selling, in the expectation of higher prices. Thus the rise of prices is still further promoted, and it acquires something like a "justified" character, except that this justification comes *post factum*. If the producer at the same time loses his incentive to sell, because of the scarcity of other goods that he needs, the middleman's action will rest upon a still more solid basis.

Consequently, owing to insufficiency of transport, we observe the following phenomena in the market as a whole: (1) reduced supply, both as compared with the former supply and the supply that would be possible at the moment, (2) increased demand, owing not only to an extraordinary consumption demand, but also to the speculative demand from the middlemen, and (3) increased prices in the consumption, as well as the production market. These things may happen even when there are abundant supplies to be found in the country generally.

#### *The Problem Further Complicated.*

Another complication must be discussed briefly. This arises from the fact that not only finished articles of food, but also those in need of further manufacturing processes figure in the market. The demand for these products comes from those who are engaged in these manufacturing processes, and this cannot, therefore, be considered a consumption demand. But when we reflect that the demand for raw products is, at bottom, the ultimate demand of the consumer for the finished article, we may construe this kind of demand as an indirect consumption demand. Essentially, the position of the converter of raw materials is the same as that of the commercial middleman, the sole difference being that the middleman's function in this instance is complicated by the additional business of manufacturing. On the other hand, the consumption of the producing enterprise itself may have no effect whatever upon the supply of raw material; that is, the potential supply will, in this case, coincide with the

volume of production. But then, again, some of the raw material may be converted into finished articles by the establishment that produced it, or turned over to another establishment for the finishing process, as, for example, grain sent to the mill for flour production. In both these instances the potential supply will not coincide with the production, as a portion is retained for the producer's requirements. But in either case these complicating factors do not radically modify the statement of the problem made previously.

### *Plan of Investigation.*

It now remains for us to formulate, on the basis of what has been stated thus far, the general scheme of our investigation.

First of all we must study the movement of prices during the War, in order to obtain a general view of the problem we are concerned with. Next we shall have to analyze the causes underlying the characteristic features of these price movements. And this must lead us logically to an investigation of the entire machinery of the market in foodstuffs. Our starting point will be the potential supply and ordinary consumption demand. Determination of the extent of the potential supply is reduced to a determination of the volume of production, and of the latent demand. The extent of the ordinary consumption demand will have to be ascertained, with the aid of statistics relating to the movement of earnings, changes in wants, the nature of wants (their elasticity), and other such factors, on the basis of the volume of the ordinary consumption. It should be stated here that it is not possible to elucidate all these matters with equal fulness, and it may, perhaps, not be possible to do this in the exact sequence that would seem the most desirable. In spite of such handicaps, however, we expect to arrive at certain conclusions that will prove sufficiently reliable.

We shall endeavor, first of all, to eliminate the influence of market disturbances pure and simple (impeded circulation of goods and effect of the scarcity of complementary goods) and to ascertain, if possible, how far the price movements have been due to causes that influence them in normal times. Since the effective (actually present) supply is normally equivalent to potential supply, and effective demand coincides with consumption demand, it may be that a comparison of potential supply and consumption demand during the War period will enable us to arrive approximately at

that movement of prices which would have been observed had there been no disorganization of the market. In the case of some foodstuffs, the price movement will probably be easy to explain, in some degree at least, by the fact that the ratio between possible supply and consumption demand was about normal. For other foodstuffs, the movement of prices may be found entirely at variance with the anticipated state of the potential supply and consumption demand. Again, we may come across a case where the price movement for all foodstuffs defies full explanation on the basis of potential supply and consumption demand. This latter instance will serve as proof that both factors (potential supply and consumption demand) have ceased to govern the effective supply and demand. We shall then have to inquire what other factors played their part in influencing effective supply and demand. This will compel us to find out whether there had been heavy speculative business done by the middlemen; whether producers kept their output from the market; and whether there had been some extraordinary hoarding by consumers. And when we find that all these things actually did figure in the situation, we shall see at the same time that they are mere reflections of other, still deeper causes. At this stage we shall have to endeavor to measure the effects of the disorganization of transport and dislocation of goods exchange in the foodstuffs market. By the latter term we mean the difficulties that arose from the scarcity of those goods which were required in exchange for foodstuffs.

Lastly, in so far as it will be necessary to explain the possibility of increases in price as a result of increased money incomes, we shall not be able to pass over in silence the problem of the effects of increased issues of paper currency upon the market in foodstuffs.

All this should make it possible for us to study in systematic fashion the effects of inevitable, natural factors and causes upon the machinery of the market and of prices. During the War, however, there was a persistent intervention by Government in the economic life of the nation. Price regulation and related measures exercised a considerable influence upon the condition of the market and prices. This is why it will be our task also to consider these aspects of the problem and to see how far the conflict between the natural factors in the market and the will of the State to control these factors rationally may have been responsible for either aggravation or



amelioration of the disorganized state of the market and of the entire mechanism of prices. Only after we have concluded our investigation of all these factors and studied their mutual effects shall we be in a position to consider our task completed.

## CHAPTER II

### SOURCES OF INFORMATION

#### *Outside Sources of Information.*

WE shall consider here briefly the sources of information that we have utilized in our study of the problem of price movements.

The most important source of information on price movements before the War had been the *Svod Tovarnikh Tsen na Glavnikh Russkikh i Inostrannikh Rinkakh* (*Summary of Commodity Prices in the Principal Russian and Foreign Markets*), an annual publication of the Statistical Department of the Ministry of Commerce and Industry. Its last issue was that of 1913. The Summary for the year 1914 was being printed at the close of 1915, but we are not aware that it was ever published. The author had at his disposal practically all the sheets of the latter Summary that came from the press, and he utilized them during the War. For 1915 and 1916 there was no publication of the Summary.

It will be seen therefore that we have no complete data available for all classes of products covering the most interesting period. It should be stated, however, that the Statistical Department of the Ministry of Commerce and Industry also used to publish *Svedenya o Tsenakh na Khleb i Nekotorie Vazhneishie Tovari* (*Reports on the Prices of Grain and of Some of the Most Important Commodities*), giving information on prices of grain and some other important commodities. This publication was for official use only. We have at our disposal all the issues down to December 15, 1916. It is to be regretted that far too little space was devoted to foodstuffs in these reports.

For cereals, the Ministry of Agriculture provided special sources of information covering all the provinces and a large number of years. A peculiar feature of these sources is that they give local prices and cover only two seasons of the agricultural year—the spring season (end of April and beginning of May) and the autumn season (latter half of November). These quotations are largely those at which the producer disposes of his grain at the small, local market. But in the consuming provinces, where the peasant is compelled to buy outside grain at the end of the agricultural year, the

local prices are evidently those at which the farmers not only sell (in case of surplus) the grain, but also buy it (in case of shortage). We have available the local quotations for cereals covering the entire war period, to the close of 1917. For the latter year the data have been published by N. D. Kondratev in his book, *Rinok Khlebov i Ego Regulirovanie vo Vremya Voiny i Revolutsii* (*The Grain Market and Its Regulation during the War and the Revolution*), Moscow, 1922; these data were taken from unpublished sources of the former Ministry of Agriculture.

Lastly, price reports were published from time to time in the *Torgovo-Promishlennaya Gazeta* (*Gazette of Commerce and Industry*). A summary of these reports for two years of war was prepared by the Statistico-Economic Bureau of the All-Russian Union of Towns and published under the title *Dvizhenie Tsen za Dva Goda Voiny* (*Movements of Prices during Two Years of War*), Petrograd, 1916. We also have to note that the statistical divisions of the zemstvos and municipalities were collecting and publishing information concerning the prices prevailing in retail markets and stores; but we are unable to avail ourselves of these scattered and not always printed data.<sup>1</sup>

To conclude our brief survey of sources of information, we shall mention the interesting and well-digested material to be found in the *Trudy Kommissii po Izuchenyu Sovremennoi Dorogovizny* (*Works of the Commission for the Study of the Present High Cost of Living*) published by the Chuprov Society, Moscow, 1915, issues I–III. This covers the first year of the War. Issue I is of particular importance for our purpose. Mention should also be made of an essay by Professor Pervushin, entitled *Volnya Tseni i Pokupatel'naya Sila Russago Rublya v Godi Revolutsii* (*Competitive Prices and the Purchasing Power of the Ruble during the Revolution*), which appeared in Volume I of *Denezhnoe Obrashchenie i Kredit v*

<sup>1</sup> The following admission made by one of the most recent investigators of price movements is very characteristic:

"During the first year of the Revolution (1917), most of these organs (those collecting information on prices) nominally continued to collect data, especially the two statistical offices at the capitals. But for different reasons the work done in this direction became disorganized, so that the result was that for a number of months in 1917 we have no data on prices even for the capital cities . . ." (Pervushin, in *Denezhnoe Obrashchenie*, 1922, I, 60–61).



*Rossii i Zagranitseï* (*Money Circulation and Credit in Russia and Abroad*), published by the *Institut Ekonomicheskikh Izsledovani* (Institute of Economic Research), Petrograd-Moscow, 1922. This essay gives some price data for the first half of 1917.

*Our Own Sources of Information.*

The present volume, however, is based upon entirely different sources. We have taken as the basis of our work the prices collected and digested, under the direction of M. Demosthenov, by the Division of Price Statistics of the Special Council on Food Supply.<sup>2</sup> In undertaking the collection and computation of those prices, M. Demosthenov proposed to do for food products the same work that had been done in peace-time by the Summary of Commodity Prices, but which the latter found itself unable to perform with sufficient promptitude in war-time. The data on prices were obtained from the bulletins received by the Division of Price Statistics from every produce-exchange in the empire. These prices were then tabulated for ten-day periods and for monthly periods. As regards the details of the statistical computation of these data, there seems to be no necessity for us to enlarge upon them. Suffice it to say that prices were now recorded for a much larger number of markets and grades of a given commodity than figure in the Summary. Thus, in the case of wheat, the Summary accounted for thirty-four markets, whereas the Special Council recorded quotations from fifty-four markets (not to mention the fact that those quoted by the Summary included some markets that had lost all importance during the War). The corresponding figures for rye were forty-three and fifty-seven, for wheat flour thirty-three and fifty-five, and so on. The Summary recorded an average of four grades of wheat flour per market, while the Special Council recorded six grades. As both institutions derived their information from the same source—the exchange bulletins—it stands to reason that the price data supplied by the Special Council must be of the same nature as those contained in the Summary, and we may regard them as a direct continuation of the latter.

We have thus been able to avail ourselves of data from produce-exchange quotations covering the whole of 1914 and 1915, and

<sup>2</sup> M. Demosthenov was ably assisted in this work by his collaborator, M. Dolinsky, and a special staff.

nearly the whole of 1916. After September–October, 1916, however, the produce-exchange prices are no longer available. This was due to the disorganization of the produce-exchanges caused by the strict price regulation and other Government intervention in the food trade in the autumn of 1916. A number of exchanges ceased to publish their bulletins, and some issued them either as blank sheets or with the officially regulated prices only. After the autumn of that year, all business is done outside the exchanges.

Price data prepared by the Special Council were published on several occasions. The first issue appeared at the beginning of 1916 under the title *Dvizhenie Birzhevikh Tsen na Glavneishie Prodo-volstvennye Produkty v Oktyabre, Noyabre, i Dekabre 1915 Sravnitel'no s 1913 i 1914* (*Movements in Exchange Prices for the Principal Food Products in October, November, and December, 1915, as compared with 1913 and 1914*), published at Petrograd by the secretariat of the Special Council on Food Supply. This also contains M. Demosthenov's *Obshchaya Soobrazheniya o Prichinakh Sovremennoi Dorogovizny* (*General Consideration of the Causes of the Present High Cost of Living*) and a wealth of statistical material.

Later, when the commissioners of the Special Council held their conference (August, 1916), several compilations dealing with prices were published: (1) *Dvizhenie Birzhevikh Tsen v Yanvare i Fevrale 1916* (*Movements in Exchange Prices during January and February, 1916*), (2) a volume under the same title for March and April, 1916, and (3) another volume under the same title for May and June of the same year. Parallel with these publications, the price movements for the corresponding months of 1915 were published.

When the Bolshevik Revolution occurred, this work was completed, so far as its main features were concerned, including the index numbers for every foodstuff in any market. In computing these indexes, the average prices for 1913 were taken as a basis. The whole work was to be completed by the following special tables: (1) index numbers for all grades (or varieties) of each separate product, in any market; (2) general index numbers for each product, both by groups of markets (selected according to some definite attribute, for instance, according to whether they were production or consumption markets for the given commodity) and for all the

markets taken as a whole; (3) general index numbers for all products and for all markets.

The completion of this task was unfortunately made impossible by the events of the Bolshevik Revolution; the strike of the government officials, followed somewhat later by the evacuation of all commissariats (which took the place of the former ministries) from Petrograd to Moscow, definitely put an end to it. Subsequently, when the former officials and clerks resumed work, it transpired that a great deal of all this valuable compilation had been irretrievably lost. But the basic material was fortunately recovered later, so that some of the work could be continued.

In 1920 the Petrograd Division of the People's Commissariat on Food Supply made public the figures showing the movements in produce-exchange prices in 1915 and 1916, under the title *Dvizhenie Birzhevikh Tsen na Glavneishie Prodozvolstvennie Produkty v 1915 i 1916 Godakh, Sravnitelno s 1913 i 1914 Godami* (*Movements in Exchange Prices for the Principal Food Products in 1915 and 1916, as compared with 1913 and 1914*), issue II, Petrograd, 1920.<sup>3</sup> We have been able to avail ourselves of this volume and have found, upon close examination, that all the data regarding prices and all the index numbers for the various grades of goods have been taken from the earlier sources and deserve absolute confidence. But the tables giving general index numbers for separate markets, for groups of markets, and other such data, have been compiled in violation of the most elementary rules and should be entirely rejected.<sup>4</sup> We have thus found it necessary to reconstruct fundamentally every one of these tables. But as we have been unable at the present moment to obtain the Summary for 1914, and since the Soviet publication lacks absolute figures and index numbers for different grades of products in 1914, it has been impossible for us to correct, in our tables, errors in the index numbers for the first half year of the War. The reader should, therefore, bear in mind

<sup>3</sup> The above-mentioned volume by M. Demosthenov, published in 1916 (see p. 236) was regarded as issue I.

<sup>4</sup> The whole of Part II, beginning at page 123, will have to be rejected. We should feel extremely sorry if the careless execution of Part II, which has been based ostensibly upon our own plan, were to be considered sufficient to vitiate the whole volume. It is fortunately otherwise. We mention this in case students unfamiliar with the history of the statistical computation of produce-exchange prices should desire to use that volume.



that only the index numbers for 1915 and 1916 given in our tables in the present work can claim to be accurate. Still, through a process of complicated comparisons, we have arrived at the definite conclusion that even in 1914 data are quite reliable for the overwhelming majority of markets. We call attention to these facts in order to show the difficulties encountered by the student of war-time prices at the present day.

In conclusion, we wish to point out that the Special Council did not confine itself to a mere collection of produce-exchange quotations. In the autumn of 1916, when the paralysis of the exchange machinery had become evident and the prices quoted by exchanges could not serve any practical purpose, the Special Council ordered the zemstvos and municipal institutions (or the organs of the Ministry of Agriculture, where no such institutions existed) to send in reports on prices of foodstuffs according to a definite plan. These reports of wholesale and retail prices were to distinguish between the chief towns of a province or district, rural localities, etc. This material is of great value and, so far as the present writer is aware, is the only systematic collection that gives a complete picture of price movements throughout the empire in 1917. But in the chaos of the Bolshevik Revolution all these data were lost and have never been recovered.

Recapitulating briefly what has been stated above, we may note the following facts: (1) data on the produce-exchange prices of foodstuffs are available only for the first two or, at the utmost, two and a half years of the War; the most reliable material for an investigation of prices—produce-exchange quotations—for most of the commodities, disappears about September–October, 1916, and the only exchange prices at our disposal up to January, 1917, are those for meat and butter; (2) for cereals, we have the data of the Ministry of Agriculture, relating to the local market prices covering the entire period of the War; (3) we may use as auxiliary material the price quotations of the *Torgovo-Promishlennaya Gazeta*, digested for two years of the War by the Statistico-Economic Bureau of the All-Russian Union of Towns.

#### *Reliability of Our Material.*

The question to what extent the quotations of exchanges and local market prices may be taken as a reliable basis for this investi-

gation is very important. At first sight such a question may cause surprise, for what could be more reliable than the quotations of the produce-exchanges? But as soon as we stop to reflect upon the peculiar conditions that prevailed during the War, we see that this is by no means an idle question. The truth is that, as soon as war was declared, the local authorities in a great many cities and provinces, but especially in those which depended upon outside supplies, began to regulate prices of foodstuffs and other commodities. Later on, prices were fixed in the producing areas by the central Government for army purchases. Nominally, this form of price regulation should have left private business unaffected; but actually the machinery of commerce was forced to reckon with it. In any case, the fact is that exchange committees and persons doing business with the exchanges were afraid that unpleasant consequences might ensue if prices were quoted in the bulletins, exceeding those established by either the local or the central authorities. A careful examination of these prices, however, has convinced us that, in most of the markets, the exchange bulletins give us a more or less faithful and complete view of price movements. When no transactions take place, the sellers' prices show the market situation most clearly, and this is the reason why we have used these sources also in our work.

#### *An Important Feature of Exchange Quotations.*

There remains one peculiar feature of our produce-exchange prices to be briefly noted. The overwhelming majority of the Russian produce-exchanges were situated in the producing regions. The areas of consumption had very few such institutions. This explains why our prices are so largely those of the areas of production. Since we have constructed our general index numbers of rising prices for the empire from the index numbers of all the markets, with the result that the consumption markets are completely lost in the vast mass of production markets, it follows that our general index numbers cannot reflect with absolute precision the movement of prices for the Russian Empire as a whole. In the tables contained in the next chapter we, therefore, include index numbers calculated according to groups of markets (production and consumption markets), so that, by combining these group indexes, we are able to observe much more accurately the movement of prices throughout the empire.

## CHAPTER III

### GENERAL NATURE OF PRICE MOVEMENT

#### *Rising Prices before the War.*

WHEN we examine prices of different commodities for all markets of the Russian Empire, we find that in the war period the rising tendency affected all commodities in all markets. It is safe to say, therefore, that the high cost of foodstuffs was not a local phenomenon, but extended throughout the empire.

This, however, was nothing new in Russia. Advancing prices of commodities, foodstuffs included, had been noticed before the War for a considerable time. It appears from Table 1 that in 1913 the price of all commodities taken together was 36.6 per cent higher than the average price of the 1890–1899 period.<sup>1</sup> For the decade 1900–1909, the general index number was 118 (the prices of 1890–1899 being taken as 100); for 1910 it was 128.9; for 1911, 130.9; for 1912, 138.9; for 1913, 136.6. Mineral products (fuel and metals) showed the strongest advance, followed by animal products (cattle, meat, butter, hides), textile materials, and cereals. Chemicals and groceries rose the least. Among the mineral products, petroleum and oil residue showed striking price increases (their index numbers being 259.5 and 323.4 respectively); also tin, lead, and coal. Among the animal products, there was a heavy increase

<sup>1</sup> This table was prepared on the basis of the Summary for 1913, pp. ii-vii (Petrograd, 1914). The groups of commodities named in this table comprised:

(a) *Cereals*: rye, wheat, oats, barley, maize, peas, buckwheat, buckwheat grits, millet, wheat flour, rye flour, bran, malt;

(b) *Animal products*: large cattle, small cattle, meat, ox hides, lard, butter, herrings;

(c) *Oil products*: linseed, hempseed, sunflower-seed; the oils of these three kinds of seed and of rape and olive; oil-cake;

(d) *Textile materials*: flax, hemp, cotton, cotton yarn, calico, wool;

(e) *Mineral products*: coal, petroleum, oil residue, kerosene, cast iron, other iron, copper, tin, zinc, lead;

(f) *Chemicals*: white lead, indigo, borax, vitriol, potash, soda, niter, sulphur, dyestuffs, rosin, tragacanth;

(g) *Groceries*: salt, sugar, coffee, tea, rice, pepper, dried currants, almonds, hops.



TABLE 1  
PRICE MOVEMENT IN GROUPS OF DIFFERENT PRODUCTS,  
1900-1913

<i>Date</i>	<i>Groups of products</i>							
	<i>All cereal products</i>	<i>Animal prod- ucts</i>	<i>Oil prod- ucts</i>	<i>Textile materials</i>	<i>Mineral prod- ucts</i>	<i>Chem- icals</i>	<i>Gro- ceries</i>	<i>All products</i>
1890-1899	100	100	100	100	100	100	100	100
1900-1909	119.9	131.4	111.1	133.0	118.7	107.2	105.4	118.1
1900	98.7	117.8	108.0	124.5	131.1	103.2	103.8	112.4
1901	106.8	115.3	132.1	131.0	109.1	101.5	108.0	114.8
1902	112.8	121.8	113.3	124.8	96.5	99.4	102.6	110.2
1903	102.0	121.9	94.3	130.0	98.2	98.9	104.5	107.1
1904	106.3	121.7	96.7	134.1	106.9	102.7	108.7	111.0
1905	117.0	127.8	102.0	127.0	119.0	105.3	108.2	115.2
1906	122.7	137.3	115.4	139.8	137.9	112.7	108.4	124.9
1907	146.7	148.4	109.5	146.4	141.8	121.0	106.7	131.5
1908	147.4	148.4	106.1	134.7	124.4	115.8	102.4	125.6
1909	138.5	152.5	130.9	138.6	121.7	111.6	101.1	127.8
1910	117.8	154.6	140.7	154.3	116.7	113.6	104.8	128.9
1911	128.0	143.9	134.1	151.9	129.9	117.9	110.4	130.9
1912	145.7	153.7	126.8	150.7	155.6	122.7	117.1	138.9
1913	128.9	168.7	112.6	145.5	168.8	119.5	112.4	136.6

in the price of hides; among textile materials, hemp and cotton rose considerably, and among the cereals, barley.

Broadly speaking, it may be said that the prices of raw materials rose more than those of finished products, and those of export goods more than those of commodities imported from abroad.

The development of industry within Russia, but mainly the demand of the world market, had a powerful effect upon the prices of raw materials, tending to drive them up to the level of prices ruling in the world market. Railway construction and cheaper transport contributed to bring about the disappearance of the self-sufficing "natural" economy of the country, opened up new territories to the influences of both the domestic and foreign markets, and naturally caused prices to advance. Improved and cheaper transport facilities exerted their influence also upon prices in those Russian markets which were already participating in foreign commerce. At the same time there was a stronger upward trend in Russian than in foreign prices.

We may now consider price movements in foodstuffs before the

War. We have selected only thirteen of the principal foodstuffs, because it is only for these commodities that we are able to furnish more or less complete data covering also the period of the War. Table 2 (compiled on the basis of the Summary for 1913) shows that, on the whole, food prices tended to rise, but that there were considerable fluctuations from year to year, a phenomenon easily explained by fluctuating harvest conditions. Salt was the only article that showed very small changes in price, remaining practically stationary throughout this period. A drop in prices was noted only

TABLE 2  
PRICE MOVEMENT OF PRINCIPAL FOODSTUFFS,  
1900-1913

	1890- 1899	1900- 1909	1909	1910	1911	1912	1913	1909- 1913
Rye <sup>2</sup>	100	117.2	138.4	114.0	123.7	140.0	121.5	127.5
Wheat <sup>3</sup>	100	114.1	138.5	122.2	127.9	141.7	129.5	131.9
Oats <sup>4</sup>	100	113.5	122.3	101.1	121.1	149.3	124.0	123.5
Barley <sup>5</sup>	100	129.9	146.1	123.9	152.9	181.1	152.5	151.3
Grits, buck- wheat <sup>6</sup>	100	111.2	120.9	97.1	97.8	111.3	112.3	107.9
Millet <sup>7</sup>	100	122.7	137.5	121.3	128.5	142.9	123.5	130.7
Flour, wheat <sup>8</sup>	100	111.8	131.8	118.6	132.0	139.6	136.7	131.7
Flour, rye <sup>9</sup>	100	117.6	143.0	120.3	130.3	142.0	135.6	134.2
Butter <sup>10</sup>	100	111.8	121.7	120.8	122.7	130.4	127.2	124.5
Meat <sup>11</sup>	100	119.4	142.8	139.4	136.3	152.5	160.8	146.3
Sugar, granul. <sup>12</sup>	100	95.3	95.3	97.5	90.8	86.6	92.9	92.6
Sugar, lump <sup>13</sup>	100	94.1	91.6	87.6	87.1	78.4	86.9	85.9
Salt <sup>14</sup>	100	100.5	103.5	103.5	105.5	100.9	99.0	102.5
	100	112.2	125.6	112.8	119.7	130.5	123.2	122.3

<sup>2</sup> St. Petersburg, Reval, Riga, Libau, Odessa, Nikolaev, Taganrog, Rostov, Novorossisk, Moscow, Eletz, Samara, Saratov.

<sup>3</sup> Riga, Nikolaev, Taganrog, Rostov, Novorossisk, Eletz, Samara, Saratov.

<sup>4</sup> St. Petersburg, Reval, Riga, Libau, Odessa, Rostov, Novorossisk, Moscow, Eletz, Saratov.

<sup>5</sup> Odessa, Nikolaev, Taganrog, Rostov, Novorossisk.

<sup>6, 7, 8, 9, 10</sup> Moscow. The term millet, as used in this monograph, means millet grits, unless otherwise defined.

<sup>11</sup> St. Petersburg.

<sup>12, 13</sup> Kiev.

<sup>14</sup> Ribinsk.

in sugar, and it was found that lump sugar fell much more than granulated. All other products, with only a few exceptions, show a constant rise in prices. Barley heads the list in point of rising price; the second place belongs to meat (in 1913 it outstripped even barley); third comes rye flour, and fourth, wheat and wheat flour. After these come millet, rye, butter, oats, and buckwheat grits.

It thus appears that there was a considerable rise in prices even before the War. The fact is that for some years before its outbreak, the problem of the high cost of living in Russian cities had become serious, although, of course, not so serious as in most of the western European countries. According to figures published by the British Board of Trade, the sharpest rises in the price of foodstuffs (compared with 1900, for which year the prices are taken as 100) were noted in 1911. In that year the respective index numbers in Hungary, Austria, Belgium, and Germany were as follows: 137, 128, 128, 128. Directly after these countries came Russia; then followed Italy, France, Holland, Norway, and England with the following index numbers: 121, 118, 117, 117, 109.

As for the causes of the rise of prices previous to the War, they do not fall within the scope of the present work and we shall not discuss them here, observing only that there is no unanimity with regard thereto among the students of the problem.

#### *Base of Index Number Calculation.*

Turning now to our inquiry into price movements during the War, we must, first of all, answer one highly important question, namely, what base shall we adopt for the calculation of our index numbers? At first sight, one would suppose that the most convenient course would be to take the base employed in the preceding tables, that is, the average of prices for 1890–1899. We could thus link up the index numbers of war and peace prices to form a continuous chain. But two objections may be advanced, one of principle and the other of a technical character. We must note, first of all, that the War shook the very foundations of the national economy to such an extent as to affect profoundly the whole machinery of markets and prices; and that it would, for this reason, if for no other, be wise to take the average prices for several years immediately preceding the War as a base for our index calculation, instead of price averages of a remote period. It would thus be possible to bring into



stronger relief the peculiar character of price movements under the conditions of the War. It is evident that, in studying the war prices, we shall always feel the need of comparing them with those of a recent, not of a very remote, past.

But we are also forced to reckon with a technical consideration. The Summary, it should be understood, while serving as the principal source of price study in peace-time, covers a very large number of markets only for a very limited number of years. Were we to take as the base of our index computation the average prices of 1890–1899, we should be restricted to an insignificant number of markets for each commodity. In time of peace, the prices prevailing even in a single large market might have been taken as a fair index for the whole country. But during the War there was no single market that could serve such a purpose. Many markets during this period lost all their former importance (for instance, some of the seaports), and the relative importance and sphere of influence of many others underwent radical changes. In these conditions it is especially desirable to take as many markets as possible as a basis for price calculations. In other words, a proper selection of “typical” markets is far more difficult for a period of war than for one of peace. It will thus be seen that we cannot rest satisfied with the 1890–1899 averages as a basis for the index numbers of the war period.

Considerations of the same nature should also make us very cautious in selecting any other base. It would, of course, be highly desirable that we should take as our base the average prices for a number of years immediately preceding the War, since only a considerable period could furnish an average that would prove sufficiently characteristic of times of peace. But this, again, would reduce the number of markets to be utilized in our construction of general index numbers. At first, we intended to use the average prices for the five-year period, 1909–1913, but this had to be abandoned, for it would have entailed the exclusion of some very important markets. We finally decided to use the averages for 1913 only. Fortunately the prices for this year were almost identical with those of 1909–1913 in those markets in which comparison was possible.

Needless to say, when we consider each commodity by itself, there is no such complete agreement. The difference is especially marked in the case of meat. A glance at Table 2 will show that our index

numbers of the rising meat prices for the period of the War would have been higher had we assumed as our base the average prices for 1909–1913. In the other products we do not, on the whole, see any important differences. At all events the essential point is that, in taking the 1913 averages as our base, we do not impart to the index numbers of the war period an artificially inflated character, for 1913 was, in the main, an “average” year and not conspicuous for very low prices.

It goes without saying that in calculating index numbers for each separate commodity the same composition of markets and grades has been used for the entire period of the War. The only errors in this respect may have crept into the 1914 figures, for reasons made sufficiently plain in Chapter II.

Generally speaking, it was necessary to exclude a large number of markets altogether, either because they stopped quoting prices very early or because they quoted none during long intervals. In such cases we did not think that departures from uniformity, by way of omissions or interpolations, were permissible. The same applies to various grades of certain goods in one market or another. Many grades had to be excluded entirely. In all cases where we have admitted interpolations for the different grades or for the aggregate of all grades of some particular commodity in one market or another, we have refrained from explanatory footnotes, as tending to congest the tables without absolute necessity. We wish to add that the interpolations were made with extreme care and due consideration of all circumstances in each separate case (price movements of other grades of the same article in any given market, or of the same grades in other markets related to the first, etc.). To publish complete tables covering all products and all markets would require more space than is permissible in this work.

#### *A Forecast of War-time Supply Conditions.*

Now, if, without consulting Tables 3, 4, 5, 6, 7, we were to ask ourselves what the price movements in foodstuffs ought to be during the War, taking into account the cessation of exports and the anticipated oversupply of labor in the rural districts, our first thought would undoubtedly be that which occurred to Bloch, as early as 1898. In a bulky work which he then wrote on the prob-

lem of *The Future War, Technically, Economically, and Politically Considered*,<sup>15</sup> he makes the following forecast:

With the cessation of the exports, the demand for grain will decline and its price will fall; at the same time the earnings of the peasants and farmers will also decline. Moreover, there will be fluctuations in price, for the simple reason that the standard for grain prices is always supplied by the export of the grain, and this export will have ceased. Increased army purchases cannot compensate the loss of the export markets. Besides, delivery of grain to the army will be exceedingly difficult, since rolling-stock will be occupied transporting troops and army freights. The other Russian export commodities belong mainly to the category of raw and semi-manufactured materials and products, such as seeds, flax, hemp, timber, bristles, and wool. With the grain, these make up about 80 per cent of the total exports of Russia. In the domestic trade in these commodities, the closing of the export market will cause the same upheaval as in the grain trade.

This situation, the author continues, is bound to have a detrimental effect upon Russian industries, because

in those fields which have anything to do with producing things needed by the army, work will, of course, not stop . . . but undoubtedly the demand for such goods in the general market will shrink in proportion with the growing decline in agricultural earnings, especially as there will be all-round confusion and chaos in agricultural conditions. Russian industry rests chiefly upon the gratification of the demands of the peasantry. . . . Naturally, the reduced purchasing power of the peasantry, as a result of the War, must lead to an appreciable curtailment of industrial production.

It must be admitted that these views were shared by a number of other persons. At the beginning of the War, Russian industrialists began to reduce the output of goods for civilians, and there was, in consequence, considerable alarm among the agricultural population. Thus M. Bartenev, Senior Factory Inspector for the Province of Moscow, wrote in a report:

Immediately after the beginning of hostilities, there was a groundless panic among the manufacturers. A wholesale curtailment of production was started. . . . As a consequence, production shrank by

<sup>15</sup> J. S. Bloch, *Budushchaya Voina v Tekhnicheskome, Ekonomicheskom, i Politicheskom Otnosheniyakh*, 1898, quoted in Prokopovich (see p. 247, n. 17), pp. 6-7; abbreviated English translation, New York, 1899.



25, and even as much as 50 per cent, in nearly every class of manufacture.<sup>16</sup>

Again, in August, 1914, Prince Shakhovskoi, in his report to the Moscow Agricultural Society, said:

It is absolutely impossible to forecast the duration of this War and when our exports from the south will be resumed, and we cannot, therefore, tell precisely when wheat prices will again be regulated more or less normally. In these conditions, it may be that wheat will for some time lose all its value to the holder because there is no purchaser to be found for it in the domestic market. . . .<sup>17</sup>

#### *Price Movements during 1914.*

We can now turn to a consideration of the movement of prices in 1914. Table 3 gives us a complete view of the changes in food prices during 1914. It should be noted here that this table represents an independent calculation in which the index numbers do not coincide with those for the same months of 1914 and for the same commodities given in the subsequent tables. This is due to the fact that in preparing Table 3 we have taken into account all the markets and all the grades of foodstuffs that were available in 1914, whereas, in the latter tables, we have used only those markets and grades of commodities for 1914 which could be utilized also for the subsequent war years.

When we examine our table, we are necessarily struck by the following facts. For wheat, we have a considerable drop in prices immediately after the declaration of war, followed by an opposite movement beginning in November. In December, prices are already above the highest level reached during the preceding months. Wheat flour remains almost stationary after the outbreak of hostilities, declining somewhat in October, but rising perceptibly in December. Rye, with the exception of a slight drop in October, keeps on rising in price, and reaches a very high level in December, when it stands 22.2 per cent above the price of 1913. Rye flour keeps rising steadily, without setbacks of any kind, and more rapidly than rye (the sole exception is in September). Barley drops steadily from

<sup>16</sup> *Trudy Kommissii po Izuchenyu Sovremennoi Dorogovizny*, issue III, p. 217.

<sup>17</sup> S. N. Prokopovich, *Voina i Narodnoe Khozyaistvo (War and the National Economy)*, Moscow, 1917, p. 184.

TABLE 3

## PRICE MOVEMENTS IN 1914 COMPARED WITH 1913

Commodities	Average price in 1913	1914											
		January	February	March	April	May	June	July	August	September	October	November	December
Wheat	100	92.5	94.7	96.7	95.3	97.8	96.9	99.3	93.8	92.2	91.1	93.7	99.4 <sup>18</sup>
Flour, wheat	100	94.3	94.1	95.5	95.5	95.8	97.2	99.9	100.7	99.9	98.8	99.9	101.9
Rye	100	92.7	94.4	97.9	100.0	102.3	103.8	107.6	110.1	113.1	109.8	112.3	122.2
Flour, rye	100	96.1	96.7	99.2	100.2	101.9	103.1	107.9	110.3	111.8	112.4	114.3	122.8
Barley	100	89.3	88.7	90.4	89.1	94.5	96.9	96.5	93.5	91.7	90.9	94.4	94.8
Oats	100	89.7	90.3	93.4	97.6	100.8	102.8	109.7	113.3	117.4	117.6	127.3	140.9
Grits, buck-wheat	100	104.6	105.9	107.9	108.0	110.4	112.5	114.9	120.8	126.8	134.5	136.9	146.3
Millet	100	94.7	96.5	98.6	102.0	106.3	109.8	112.2	116.6	123.0	127.6	130.8	135.8
Meat	100	99.5	102.3	102.3	106.3	109.5	103.8	106.3	102.5	94.0	87.6	92.8	92.9
Sugar, lump	100	96.1	95.2	95.9	98.4	99.6	100.3	102.4	109.3	107.9	106.4	107.1	110.6
Sugar, granulated	100	96.4	96.7	97.1	98.1	98.4	98.8	101.9	109.6	103.8	102.2	102.9	106.3
Butter	100	107.1	105.3	102.2	98.8	97.9	99.8	100.8	95.9	94.6	97.4	103.8	108.9
Eggs	100	132.4	131.0	98.3	88.7	85.7	82.0	79.0	67.7	84.0	90.4	102.8	117.3
Salt	100	106.2	106.9	110.4	104.2	104.3	103.6	104.2	108.4	110.2	118.5	135.2	141.1
Average	100	99.4	99.9	99.0	98.7	100.4	100.8	103.0	103.8	105.0	106.1	111.0	117.2
Average excluding oats and barley	100	101.1	101.6	100.2	99.6	100.8	101.0	103.0	103.8	105.1	106.4	111.0	117.1

<sup>18</sup> See Demosthenov, *Obshchaya Soobrazheniya o Prichinakh Sovremennoi Dorogovizni in Deizhenie Birzhevikh Tsen na Oktyabre, Noyabre i Dekabre 1915 Sravnitelno s 1913 i 1914 gg.*, Petrograd, 1916.

July to October; after that it commences to rise, but in December it is still below the July level, although above that of the first half of 1914. Oats rise uninterruptedly, with a slight slackening in September and October, and with a strong upward trend in November and December. Buckwheat grits increase in price even more rapidly than oats. Millet also shows an extraordinary rise, although not quite as large as buckwheat grits. Salt shows a very strong advance. Eggs, both before and after the outbreak of the War, decline in price, but in September there is an upward jump, and in December we have a considerable increase. Butter declines after July, but rises in October and reaches a fairly high level in December. Meat drops considerably in September and October, but recovers somewhat in November and December. Sugar grows dearer, on the whole, but after a sudden rise in August there is a tendency to drop; however, in November there is again an upward movement.

It thus appears clearly from the table that, although the general level of prices during the latter half of 1914 was, no doubt, higher than during the first half, we can speak of no serious increase of prices due to the War as occurring until after November, or December, 1914. For some commodities, prices were rising steadily even before the War (rye, buckwheat grits, salt, rye flour, oats, millet); the War merely accelerated the movement. For other commodities (eggs), prices had a falling tendency before the War, and the opposite movement came about only gradually. In some cases the War produced a temporary decline of prices (barley, wheat, meat, butter, and to some extent also wheat flour); and sometimes such a decline came unexpectedly after a sudden rise (sugar).

In any case, there certainly was a temporary and partial drop after the declaration of the War, affecting mainly the export commodities (barley, wheat, butter, and eggs). But articles used almost exclusively in the domestic market (rye, rye flour, buckwheat grits, oats, and millet) displayed a marked upward trend. Nevertheless there was nothing like the situation predicted by M. Bloch. We cannot possibly regard a temporary depression in the prices of a few commodities as a demonstration of the crisis in agriculture anticipated by that author in 1898, especially when we bear in mind that the autumn months in Russia had always been noted for some decline in prices.

It may be thought, however, that this situation was perhaps



caused by the poor harvest of 1914, and that we shall perhaps find later on a situation such as pictured by Bloch. These suppositions are exhaustively answered by Tables 4, 5, 6, and 7. We shall confine ourselves to an analysis of Tables 5 and 7 only, since the others merely repeat, in a briefer form, the substance of the preceding tables, and we have added them here only for the benefit of those readers who may not care to go too deeply into the figures.

First of all we have to say a few words concerning the method of construction of our general index number for all commodities. This index number, both in Tables 5 and 7, represents an arithmetical average of relatives for the several commodities. The same holds true of the group indexes in Table 5. We have, moreover, abstained from the use of the so-called weighting method in the construction of our general and group index numbers, so that all commodities in our analysis are of the same "weight."

The question of the advantages of one method or another in the construction of index numbers, and especially the question of weighting methods, does not seriously concern us here. All we wish to say is that our general index number must be regarded, not so much as an indication of the movement of "dearth," as rather of the changing purchasing value of money relative to foodstuffs. The conceptions of "dearth" (and "cheapness") have always a subjective tinge, as they are based not only upon prices, but also upon earnings and upon the way in which these earnings are spent. Without a careful inquiry into domestic budgets we can hardly expect to elucidate this side of the question. Changes in the purchasing power of money, on the other hand, are something objective, conditioned exclusively by price movements, irrespective of what the causes of these movements may be, and having no connection whatever with the amount of commodities bought or sold at a given price. In an endeavor to investigate fluctuations in the purchasing power of money, therefore, weighting is not only useless, but even harmful.

Yet it cannot be claimed that our general index number shows with absolute precision the movements in the purchasing power of money with reference to foodstuffs, owing to the two following obstacles: (1) the limited variety of foodstuffs for which we have price data and (2) the peculiar character of the markets, mentioned already in Chapter II. For nearly all our commodities we have had chiefly the markets of the producing areas to work upon. Hence the

unavoidable defect of our tables will be, not so much the lack of weighting in our construction of a general index number, as rather the disproportionate "weight" of the production markets in the construction of an index number for the whole empire, for each separate commodity. In Chapter IV the reader will find index numbers for each separate category of markets, and will thus be able, to a certain extent, to judge for himself how serious may be the error due to the above cause.

*Analysis of Price Movements by Groups of Foodstuffs.*

When we proceed to analyze price movements by groups of foodstuffs, we observe, first of all, that the group of cereals (see Tables 4 and 5) advanced in price till the end of 1915, and especially during the first half of that year, more rapidly than the group of non-cereals and the aggregate of all foodstuffs. After December, 1915, however, both the non-cereal and the aggregate groups outstripped the cereal group. The utterly disproportionate rise in salt, however, exercised a powerful influence upon the index number of the non-cereal products, so that the conclusion suggested by the table that prices of non-cereals rose in 1916 more than those of cereals is, therefore, unreliable. The fact really is that, during 1916, after we have eliminated salt from the group of non-cereals, the rise in the aggregate price of the remaining items in this group is found to have lagged behind that of the group of cereals. But here we must consider that the items of non-cereals at our disposal are too few in number and become almost negligible if we eliminate salt. We ought, therefore, to enlarge our list of non-cereals by including the prices of eggs, tea, herrings, vegetable oil, etc. It is unfortunate that we have no data for the last-named item, and that we have to use figures which we were unable to check for the first three. If we take for the first half of 1916 the general index number for lump sugar, granulated sugar, butter, meat, eggs, herrings, tea, and salt, we shall find that the non-cereal group leaves the cereals far behind in the rise of prices, the index number of the former being 224.4, and of the latter 189. The same result will follow if we eliminate salt from the non-cereal group and if we treat sugar either as a single or as two distinct items (lump and granulated). Nor will the situation be altered if we eliminate barley and oats from the cereal group.

It can thus hardly be doubted that the price of non-cereal prod-

TABLE 4

## PRICE MOVEMENTS DURING THE WAR IN GROUPS OF FOODSTUFFS

<i>Groups of foodstuffs</i>	<i>Average price in 1913</i>	<i>—1914—</i>		<i>—1915—</i>		<i>—1916—</i>		
		<i>June</i>	<i>Second half</i>	<i>First half</i>	<i>Second half</i>	<i>First half</i>	<i>July- August</i>	<i>Septem- ber</i>
All foodstuffs	100	104.7	110.1	141.9	155.5	195.6	215.0	....
The same exclud- ing oats and barley	100	105.5	111.0	140.6	157.6	198.6	219.1	....
The same excluding oats, barley, and salt	100	105.3	110.1	137.7	150.5	185.2	205.4	....
All cereal products	100	103.6	112.0	151.2	157.4	189.0	207.9	....
The same excluding oats and barley	100	104.6	114.2	151.9	161.8	192.2	213.2	....
Rye and wheat (grain and flour)	100	100.8	105.7	137.0	142.2	172.4	191.3	....
Flour and grits	100	106.6	118.8	158.4	173.8	203.7	226.3	....
Rye, wheat, oats, and barley	100	100.6	105.2	144.0	141.0	174.3	189.6	....
Rye and wheat	100	100.6	105.0	138.4	137.9	169.2	187.1	....
Flour, rye and wheat	100	100.9	106.3	135.6	146.5	175.6	195.6	....
Buckwheat grits and millet	100	112.2	131.2	181.3	201.1	231.9	257.0	....
Oats and barley	100	100.5	105.4	149.7	144.1	179.3	192.2	245.8
Sugar, butter, meat, salt	100	106.5	107.1	127.1	152.6	206.2	226.2	....
Sugar, butter, meat	100	106.4	104.0	116.6	133.6	174.6	193.6	....
Sugar, lump and granulated	100	101.0	104.8	117.5	132.7	149.0	148.1	....
Butter	100	100.1	103.9	109.7	146.3	205.5	244.8	331.9
Meat	100	123.5	102.3	121.8	122.5	195.1	233.7	238.2
Salt	100	106.8	119.9	169.1	228.4	332.7	356.2	366.6

ucts advanced in 1916 more than that of cereal products. But during the first year and a half of the War the opposite was true.

Let us now consider price movements in the cereal group. (See Tables 5, 6, and 7). We find the greatest increase in the price of grits (buckwheat and millet), while flour products and fodder grains were contending for the second place. Food grains stood in the last place. To a large degree, the rising tendency in the case of grits was due to the item of buckwheat grits, although millet was also advancing rather precipitately. The fodder grains owed most of their rise to oats, which lead all other cereals in rise of price. Barley, on the contrary, stands last, both in the group of grains



TABLE 5

## MOVEMENT OF PRODUCE-EXCHANGE QUOTATIONS IN DIFFERENT GROUPS OF FOODSTUFFS

Dates	All food-stuffs			All cereal products in grain, flour, and grits		Rye and wheat (grain and flour)		Rye, wheat, and oats, and barley		Flour (rye and wheat)		Grits (buck-wheat and millet)		Oats and barley		Sugar (lump and granulated), butter, meat, and salt		Butter	Meat	Salt
	All food-stuffs excluding oats and barley	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.	16.			
1913		100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
1914, June		104.7	105.5	105.3	103.6	104.6	100.8	100.6	106.6	100.6	100.9	112.2	100.5	106.5	106.4	101.0	100.1	123.5	106.8	
July		107.1	107.5	107.5	107.0	107.6	104.0	104.8	109.2	104.4	103.5	114.8	105.1	107.3	107.5	103.2	103.1	120.3	106.6	
August		108.8	109.0	109.2	109.1	109.7	104.5	105.7	112.4	104.2	104.9	119.9	107.4	108.3	108.5	109.1	100.1	115.6	107.6	
September		108.0	109.2	109.1	110.3	113.4	105.2	102.9	117.8	104.5	105.9	129.7	101.2	104.2	102.8	104.1	99.1	103.8	109.8	
October		108.5	110.1	109.5	111.3	115.0	104.1	100.9	121.6	101.9	106.4	136.8	99.9	104.1	101.1	102.3	101.8	97.8	116.4	
November		111.5	112.5	110.6	114.1	116.9	105.5	104.8	123.3	104.1	107.0	139.6	105.5	107.3	101.3	103.3	107.3	91.3	131.2	
December		116.9	117.6	114.9	120.5	122.9	111.0	112.3	128.7	111.4	110.5	146.8	113.1	111.3	102.8	107.0	112.4	84.7	145.2	
July-December		110.1	111.0	110.1	112.0	114.2	105.7	105.2	118.8	105.0	106.3	131.2	105.4	107.1	104.0	104.8	103.9	102.3	119.5	
1915, January		129.5	129.2	125.9	136.4	138.1	126.3	130.3	142.5	129.4	123.2	161.8	131.3	118.5	107.6	108.8	110.5	102.3	161.9	
February		136.1	135.1	131.6	145.2	145.8	134.4	139.6	150.8	135.8	133.0	168.6	143.3	122.2	110.4	109.4	110.3	112.5	169.1	
March		139.5	137.9	134.5	148.2	148.7	135.0	143.2	153.2	137.8	132.3	174.1	148.5	125.6	114.0	112.0	113.2	118.9	171.7	
April		145.0	142.4	139.5	155.3	154.1	139.8	150.7	160.0	142.4	137.1	182.8	159.0	128.4	117.6	118.9	105.8	127.1	171.5	
May		151.6	150.1	148.2	162.9	163.9	146.1	153.5	172.4	146.8	145.5	199.4	160.1	133.4	124.7	128.0	107.4	135.3	168.5	
June		149.9	148.9	146.6	159.4	160.6	140.3	147.0	171.7	138.2	142.3	201.2	155.7	134.8	125.6	128.1	111.3	134.7	171.7	

TABLE 5 (Continued)

<i>Dates</i>	<i>All food-stuffs</i>	<i>All food-stuffs excluding oats and barley</i>	<i>All food-stuffs including oats, barley, and salt</i>	<i>All cereal products in grain, flour, and grits</i>	<i>All cereal products including oats and barley</i>	<i>Rye and wheat (grain and flour)</i>	<i>Rye, wheat, and oats, barley</i>	<i>Rye, wheat, and grits, millet</i>	<i>Rye and wheat in grain</i>	<i>Flour (rye and wheat)</i>	<i>Grits (buckwheat and millet)</i>	<i>Oats and barley</i>	<i>Sugar (lump and granulated), butter, meat, and salt</i>	<i>Sugar (lump and granulated), and</i>	<i>Sugar (lump and granulated), and</i>	<i>Butter</i>	<i>Meat</i>	<i>Salt</i>
	<i>1.</i>	<i>2.</i>	<i>3.</i>	<i>4.</i>	<i>5.</i>	<i>6.</i>	<i>7.</i>	<i>8.</i>	<i>9.</i>	<i>10.</i>	<i>11.</i>	<i>12.</i>	<i>13.</i>	<i>14.</i>	<i>15.</i>	<i>16.</i>	<i>17.</i>	<i>18.</i>
January-June	141.9	140.6	137.7	151.2	151.9	137.0	144.0	158.4	138.4	135.6	181.3	149.7	127.1	116.6	117.5	109.7	121.8	169.1
July	143.0	143.7	140.2	147.8	150.7	127.2	129.9	165.8	120.7	133.8	197.7	139.1	135.3	124.5	126.2	116.4	129.1	178.5
August	142.7	144.1	140.4	146.3	150.1	129.0	129.6	163.1	124.2	133.8	192.3	135.0	137.0	125.8	125.9	126.9	124.8	181.5
September	147.4	149.6	145.1	149.5	154.1	135.8	133.4	165.5	131.3	140.3	190.7	135.5	144.2	131.7	133.4	136.7	123.2	194.1
October	156.5	159.1	150.6	156.7	161.6	143.7	140.9	172.6	139.6	147.8	197.4	142.1	156.1	134.1	134.6	152.2	115.1	243.9
November	165.2	167.8	157.6	167.4	172.9	154.1	151.1	183.7	151.3	156.8	210.5	150.8	161.6	134.6	137.1	148.2	115.8	269.9
December	178.4	181.3	169.2	176.6	181.4	163.2	161.1	192.0	160.1	166.2	217.8	162.0	181.3	150.9	139.4	197.6	127.2	302.7
July-December	155.5	157.6	150.5	157.4	161.8	142.2	141.0	173.8	137.9	146.5	201.1	144.1	152.6	133.6	132.7	146.3	122.5	228.4
1916, January	183.7	186.3	174.5	180.9	184.8	166.7	166.6	195.2	164.0	169.4	221.0	169.4	188.1	159.1	144.6	205.6	141.7	304.3
February	188.3	190.7	178.6	183.4	186.0	167.8	170.5	196.3	165.6	169.9	222.6	175.3	196.3	167.4	149.9	205.3	164.5	311.7
March	194.2	196.7	182.7	187.6	189.9	171.2	174.7	200.5	168.9	173.5	227.4	180.6	204.7	171.9	150.2	203.0	184.4	336.0
April	198.7	202.1	187.5	189.9	193.1	173.8	175.1	204.7	169.9	177.6	231.7	180.2	212.9	179.0	152.2	202.2	209.4	348.6
May	203.4	207.2	193.2	193.6	197.3	176.0	177.4	209.7	172.3	179.8	239.7	182.4	219.1	187.0	152.2	205.4	238.2	347.7
June	205.5	208.6	194.6	198.8	202.3	178.9	181.4	216.1	174.6	183.1	249.1	188.2	216.2	183.2	145.0	210.5	232.2	348.1
January-June	195.6	198.6	185.2	189.0	192.2	172.4	174.3	203.7	169.2	175.6	231.9	179.3	206.2	174.6	149.0	205.5	195.1	332.7
July	208.4	211.6	197.5	201.8	205.5	182.1	183.7	219.9	176.6	187.6	252.3	190.9	218.9	185.6	147.2	215.9	232.2	351.8
August	221.6	226.7	213.3	214.1	221.0	200.6	195.6	232.7	197.6	203.6	261.7	193.5	233.5	201.7	149.0	273.7	235.2	360.6
September	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	366.6
October	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
November	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
December	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
July-December	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	364.1	228.7	....

and among cereals in general. The rise in flour products was due in a considerable measure to the rise in rye flour. Similarly, the food grains owed their rising prices particularly to rye, although, in July–August, 1916, wheat had advanced at almost the same rate as rye—a fact deserving our special attention. It ought to be noted also that, on the whole, with the exception of the first half of 1915, flour was rising more rapidly than food grains.

It thus appears that the entire cereal group manifested an especially strong advance, due to buckwheat grits, millet, and oats.

Turning next to the group of non-cereal products, we must note, first of all, the extraordinary increase in the price of salt, which left far behind the increase in the prices of all the other commodities. It is also very interesting that sugar should have advanced relatively slowly, for in July–August, 1916, even barley had forged ahead of sugar. Butter showed a precipitate advance after the first half of 1915, and meat during the first half of 1916.

Tabulating the displacements of the various foodstuffs according to the rate of their price advance, for the entire period under investigation, we obtain the following result:

PLACE OF SEPARATE FOODSTUFFS IN THE LIST  
OF ADVANCE OF PRICES

<i>First half, 1914</i>	<i>First half, 1915</i>	<i>Second half, 1915</i>	<i>First half, 1916</i>	<i>July–August, 1916</i>
1. Buckwheat grits	Buckwheat grits	Salt	Salt	Salt
2. Millet	Oats	Buckwheat grits	Buckwheat grits	Buckwheat grits
3. Salt	Millet	Millet	Oats	Millet
4. Oats	Salt	Oats	Millet	Butter
5. Rye	Rye	Rye flour	Butter	Meat
6. Rye flour	Rye flour	Rye	Meat	Oats
7. Lump sugar	Wheat	Butter	Rye flour	Rye flour
8. Butter	Wheat flour	Lump sugar	Rye	Rye
9. Granulated sugar	Barley	Wheat flour	Wheat	Wheat
10. Meat	Meat	Granulated sugar	Wheat flour	Wheat flour
11. Wheat flour	Lump sugar	Wheat	Lump sugar	Barley
12. Wheat	Granulated sugar	Meat	Granulated sugar	Lump sugar
13. Barley	Butter	Barley	Barley	Granulated sugar



It will be seen from this table that buckwheat grits, millet, oats, and salt are practically throughout the period in the first places; oats, however, fall somewhat behind in July–August, 1916. These products are followed closely, during the first three semi-annual periods, by rye and rye flour; afterward, butter and meat forge ahead of these two commodities. It is interesting to note the marked displacement of wheat—both grain and flour—and of barley, during the first half of 1915, as compared with the second half of 1914. In general, it will be found that all cereals advanced during the first half of 1915 more than the other commodities, with the sole exception of salt.

We may now examine in greater detail the nature of the price movements (on the basis of Table 7).

TABLE 6  
PRICE MOVEMENTS OF PRINCIPAL FOODSTUFFS IN  
1914, 1915, AND 1916

<i>Commodities</i>	<i>Average price in</i>	<i>—1914—</i>		<i>—1915—</i>		<i>—1916—</i>		
	<i>1913</i>	<i>June</i>	<i>Second half</i>	<i>First half</i>	<i>Second half</i>	<i>First half</i>	<i>July– August</i>	<i>Septem- ber</i>
Rye	100	104.9	113.9	151.9	146.9	172.5	187.6	....
Flour, rye	100	103.6	112.6	146.8	159.1	187.8	209.5	....
Wheat	100	96.4	96.2	124.9	128.9	165.9	186.6	215.0
Flour, wheat	100	98.3	100.1	123.3	133.8	163.3	181.6	....
Buckwheat grits	100	114.5	136.9	191.7	215.6	247.8	268.1	....
Millet	100	110.0	125.7	171.4	186.6	216.1	245.9	275.8
Oats	100	102.7	118.8	177.0	177.6	217.5	227.8	299.4
Barley	100	98.3	92.0	122.4	110.6	141.2	156.6	192.2
Sugar, lump	100	102.3	106.8	120.3	135.8	153.0	154.6	....
Sugar, granulated	100	99.8	102.8	114.8	129.7	145.0	141.6	....
Butter	100	100.1	103.9	109.7	146.3	205.3	244.8	331.9
Meat	100	123.5	102.3	121.8	122.5	195.1	233.7	238.2
Salt	100	106.8	119.5	169.1	228.6	332.7	356.2	366.6
Average	100	104.7	110.1	141.9	155.5	195.6	215.0	....

The general index number for all commodities begins to climb upward rapidly after November and December, 1914. In January, 1915, it shoots up to new heights and keeps on rising steadily till May, 1915, when we find the general price level 52 per cent higher than that of 1913. This is something deserving most serious study,

TABLE 7  
MOVEMENT OF PRODUCE-EXCHANGE QUOTATIONS FOR THE PRINCIPAL FOODSTUFFS

Date	Rye	Wheat	Rye flour	Wheat flour	Buck- wheat grits	Millet	Oats	Barley	Lump sugar	Granu- lated sugar	Butter	Meat	Salt	General index
1913	100	100	100	100	100	100	100	100	100	100	100	100	100	100
1914, June	104.9	96.4	103.6	98.3	114.5	110.0	102.7	98.3	102.3	99.8	100.1	123.5	106.8	104.7
1914, July	109.6	99.2	106.8	100.3	116.7	112.9	110.9	99.4	103.3	103.2	103.1	120.3	106.6	107.1
August	111.1	97.3	109.5	100.3	122.9	116.9	117.9	96.9	108.9	109.4	100.1	115.6	107.6	108.8
September	114.8	94.2	112.5	99.3	134.6	124.8	113.9	88.6	107.3	100.9	99.1	103.8	109.8	108.0
October	111.1	92.7	113.9	98.9	143.8	129.9	114.3	85.5	105.6	99.1	101.8	97.8	116.4	108.5
November	113.8	94.4	113.9	100.1	146.4	132.8	122.2	88.9	106.4	100.3	107.3	91.3	131.2	111.5
December	123.1	99.8	119.1	102.0	156.9	136.7	133.6	92.7	109.8	104.3	112.4	84.7	145.2	116.9
July–December	113.9	96.2	112.6	100.1	136.9	125.7	118.8	92.0	106.8	102.8	103.9	102.3	119.5	110.1
1915, January	142.4	116.4	133.6	112.9	175.0	148.6	156.1	106.5	111.9	105.7	110.5	102.3	161.9	129.5
February	148.4	123.2	139.4	120.6	183.0	157.2	168.8	117.9	112.7	106.2	110.3	112.5	169.1	136.1
March	150.3	125.3	142.0	122.6	186.8	161.5	171.6	125.5	114.2	109.9	113.2	118.9	171.7	139.5
April	154.5	130.4	147.7	126.6	194.4	171.2	188.5	129.5	121.2	116.5	105.8	127.1	171.5	145.0
May	162.2	131.4	161.7	129.3	204.5	194.3	190.4	129.9	130.5	125.5	107.4	135.3	168.5	151.6
June	153.6	122.9	156.7	127.9	206.6	195.8	186.4	125.1	131.1	125.2	111.3	134.7	171.7	149.9
January–June	151.9	124.9	146.8	123.3	191.7	171.4	177.0	122.4	120.3	114.8	109.7	121.8	169.1	141.9

TABLE 7 (continued)

Date	Rye			Wheat		Buck- wheat		Gram- mated				General index		
	Rye	Wheat	Rye flour	Wheat flour	grits	Millet	Oats	Barley	Lump sugar	lated sugar	Butter	Meat	Salt	
July	132.9	108.5	143.2	124.4	203.4	192.1	175.1	103.1	129.6	122.9	116.4	129.1	178.5	143.0
August	134.0	114.4	144.6	123.0	203.3	181.4	165.3	104.7	130.3	121.4	126.9	124.8	181.5	142.7
September	141.2	121.5	154.6	126.0	208.1	173.4	167.3	103.7	135.6	131.2	136.7	123.2	194.1	147.4
October	147.6	131.7	160.9	134.8	217.0	177.8	175.1	109.1	137.2	132.1	152.2	115.1	243.9	156.5
November	159.5	143.1	170.9	142.8	227.8	193.3	185.4	116.3	140.6	133.7	148.2	115.8	269.9	165.2
December	166.1	154.2	180.4	152.1	234.1	201.5	197.3	126.8	141.7	137.1	197.6	127.2	302.7	178.4
July-December	146.9	128.9	159.1	133.8	215.6	186.6	177.6	110.6	135.8	129.7	146.3	122.5	228.6	155.5
1916, January	168.6	159.4	182.0	156.9	236.0	206.1	203.6	134.7	146.7	142.4	205.6	141.7	304.3	183.7
February	168.6	162.4	182.0	157.9	237.5	207.7	211.0	139.7	155.1	144.7	205.3	164.5	311.7	188.3
March	172.0	165.8	185.5	161.5	244.6	210.3	219.5	141.7	154.4	145.9	203.0	184.4	336.0	194.2
April	172.9	167.0	190.3	165.0	248.1	215.4	217.5	143.0	156.7	147.6	202.2	209.4	348.6	198.7
May	175.8	168.8	191.5	168.1	256.3	223.1	221.2	143.7	153.9	150.5	205.4	238.2	347.7	203.4
June	177.2	172.0	195.8	170.5	264.3	233.9	232.2	144.3	151.2	138.9	210.5	232.2	348.1	205.5
January-June	172.5	165.9	187.8	163.3	247.8	216.1	217.5	141.2	153.0	145.0	205.3	195.1	332.7	195.6
July	177.5	175.7	200.4	174.8	265.4	239.2	234.2	147.6	153.8	140.6	215.9	232.2	351.8	208.4
August	197.7	197.6	218.7	188.5	270.9	252.6	221.4	165.6	155.4	142.6	273.7	235.2	360.6	221.6
September	....	215.0	....	....	....	275.8	299.4	192.2	....	....	331.9	238.2	366.6	....
October	....	....	....	....	....	....	....	....	....	....	384.4	222.2	....	....
November	....	....	....	....	....	....	....	....	....	....	468.7	222.2	....	....
December	....	....	....	....	....	....	....	....	....	....	509.8	222.2	....	....
July-December	....	....	....	....	....	....	....	....	....	....	364.1	228.7	....	....



when we consider that only a relatively small number of troops had been called to the colors in the first year of the War, that exports had ceased, and that the economic resources of the country were still hardly impaired. We see from this table that the upward trend of the general price level during this period was due chiefly to the rise in buckwheat grits, millet, oats, rye (grain as well as flour), and salt. Even the export grains (wheat and barley) advanced 30 per cent as compared with the 1913 level. The figures for grits, millet, oats, and rye were, roughly, 105, 94, 90, and 62 per cent higher than the prices in 1913. It thus appears from the nature of these price movements that we are dealing in respect of these commodities with a "famine" year.

After June, 1915, the general index number begins to drop, and in August it has fallen nine points below May, but there is a sharp upward movement in September, and in October we find it above the figure of May. After that, prices mount steadily, and in December they are already 78 per cent above the peace-time level. During the first half of 1916 there is a gradual, although rather slow, upward movement. In June, 1916, the level stands almost 106 per cent above pre-war prices; there is no decline in June, July, and August; on the contrary, in July the price level is 108, and in August 122 per cent above the peace-time level.

The drop in the index numbers for June–August, 1915, was caused by the falling prices of certain cereals and meat, and to some extent of sugar. Barley had gone down almost to pre-war level, and wheat had also declined sharply; but rye and oats also felt the influence of the harvest situation in 1915. Prices of buckwheat grits were practically unaltered. It must be noted also that flour products were affected by the 1915 harvest condition in a far less degree than rye and wheat. Among other commodities, salt rose steadily, so that it stood in December, 1915, 203 per cent above the 1913 level. The same was true of butter. It is worth considering the fact that butter shot up suddenly only in August–September, 1915. In July of that year, butter was only 16 per cent higher than in 1913, but in December it had risen already 98 per cent. Meat shows a marked decline during the July–December period, but advances strongly in December.

We need not go into the details of the first half of 1916, for we see during this period a steady, even advance in nearly every com-

modity. The only exception is sugar, where we find lump sugar declining in May and July, and granulated sugar in June only, but this in a very considerable degree. Butter also drops slightly in March and April, but rises again in May. The movement of meat prices merits particular attention. In January, 1916, they jump upward and soon leave far behind the figures for butter. In January the index for butter is 205.6, and for meat 141.7; but in May the respective figures are 205.4 and 238.2.

In studying the figures for July and August, we observe considerable price advances in rye, wheat, flour, and especially in barley and butter. The price of oats drops slightly, but in September it shoots up seventy-eight points. Barley and butter also show sudden and considerable upward movements. For the following months we have at our disposal the figures for only butter and meat, but the meat prices are already strongly affected by the price-regulating measures of the Government; butter, however, shows to the very close of the year a most striking advance, viz., to five times the pre-war price.

In conclusion let us note that the semiannual advances proceeded in the following manner: The general index number for all commodities for the first half of 1915 was about 29 per cent higher than that for the second half of 1914; for the second half of 1915 it stood about 10 per cent higher than that of the preceding half-yearly period; and during the first half of 1916 we observe a further acceleration in the rate of advance, and the index number now stands almost 26 per cent higher than during the preceding half year.

From these figures it becomes obvious that the predicted agricultural crisis which was to result from the declining grain prices, as a concomitant of the War, failed to take place.

It is to be regretted that our preceding tables comprise only thirteen commodities (strictly speaking, there are only twelve, as sugar figures are treated as two separate items).<sup>19</sup> And it is a matter of particular regret that we have not found it possible to include vegetable oil, eggs, tea, herrings, and certain fodder products, such as bran, oil-cake, and similar articles. Data relating to eggs, oil-cake, and vegetable oil had been assembled by M. Demosthenov

<sup>19</sup> We may say, however, that in no other study of price movements in Russia for the war period have the foodstuffs been represented even to that extent.

during the War, but were not included in the volume dealing with the movement of prices quoted above. This was, perhaps, due to the fact that the prices of oil-cake and vegetable oil were collected by a special department of the Ministry of Food Supply and were not forwarded by it to the Division of Price Statistics, so that they were subsequently lost. But why the egg prices collected by the Special Council were never published under the Soviet *régime* is a mystery.

Still, this gap, caused by the lack of data for several commodities, can be partially filled, but only down to June, 1916. M. Prokopovich<sup>20</sup> cites for a number of commodities, including tea, eggs, herrings, oil-cake, and bran, the so-called "customs" prices. On the strength of these figures we have drawn up the following table:

TABLE 8  
PRICE MOVEMENT IN 1914-1916

<i>Commodities</i>	<i>1913</i>	<i>1914</i>		<i>1915</i>		<i>1916</i>
		<i>First half</i>	<i>Second half</i>	<i>First half</i>	<i>Second half</i>	<i>First half</i>
Eggs	100	105.5	100.8	99.4	122.3	201.1
Herrings, smoked and salted	100	106.8	109.8	149.3	172.7	425.7
Tea, except brick tea	100	100.2	99.8	100.9	118.7	137.2
Oil-cake	100	100.6	102.7	100.3	117.8	133.0
Bran	100	96.4	103.3	161.3	167.3	178.4

Comparing the index number for eggs in the first and second halves of 1914 as given in this table, with the corresponding figures in Table 3, we note a considerable discrepancy in the index for the second half of 1914. Table 8 gives us 100.8, while Table 3 only 90.2. We believe that the latter figure merits greater confidence, as it was derived from data covering every basic market, whereas the prices recorded by the Department of Customs are known to be of questionable accuracy.

For the later periods we regret to be unable to make similar comparisons. We shall only state here that, according to our data, the index number of the price of eggs moved as follows for October, November, and December, 1915, with the 1913 price as 100: 124.5, 125.7, and 146.3.<sup>21</sup> Taking into account the general tendency of

<sup>20</sup> S. N. Prokopovich, *op. cit.*, pp. 84-85, 88-89.

<sup>21</sup> See Demosthenov, *op. cit.*, p. 10.



the price movements in foodstuffs, we may assume that the index number for the second half of 1915 in Table 8 reflects more or less faithfully the rate of increase in egg prices. Greatest of all was the rise in the price of herrings. This is easily explained by the heavy demand of the army and the cessation of imports from abroad, the latter having played a most important part in times of peace.

Tea rises very slightly. If the customs prices may be relied upon only as indicating the real levels of prices, it must be admitted that tea held the last place in point of advancing cost among all foodstuffs.

Bran holds an intermediate place between oats and barley in the rate of advance. The price of oil-cake rose very slowly, thanks to the fact that there were heavy stocks of this commodity accumulated in the producing regions, the northern Caucasus and southeastern Russia.

## CHAPTER IV

### PRICE MOVEMENTS

#### *Yield of Principal Cereals.*

THE general movement of cereal prices has already been shown in Tables 4 to 7. It is important to bear in mind here that the changes observed in the index number for the cereal group are very helpful in throwing light on the fluctuations in the income of the Russian agricultural producer, since the four principal grains (rye, wheat, oats, and barley) included in it are the very foundation of Russian agriculture. This will be clear when we consider that, with a total yearly cereal harvest (potatoes included) of about 7,000 million puds<sup>1</sup> (the average for 1900–1913), and with only about 1,100 to 1,200 million puds (15 to 16 per cent) reaching the market, the principal cereals furnished about 4,500 million puds out of the total harvest, and about 970 million puds out of the total amount of cereals sent to market. Later on we propose to study price movements for each kind of grain separately.

#### *Rye.*

We have taken thirty-two markets, the majority of which belong to the food-producing areas (23),<sup>2</sup> while a very small number (9) are those of the consuming areas.<sup>3</sup> A given market has been included in one or the other group according as it was situated in a province importing or exporting the commodity that concerns us here. The statistical material for this purpose was obtained by us from the publications of the Special Council on Food Supply.<sup>4</sup> It is to be

<sup>1</sup> One ton = 62 puds.

<sup>2</sup> Balashov, Borisoglebsk, Kirsanov, Kozlov, Morshansk, Tambov, Voronezh, Kiev, Kremenchug, Nikolaev, Odessa, Pokrovskaya Sloboda, Rostov-on-Don, Samara, Saratov, Simbirsk, Syzran, Ufa, Kharkov, Tsaritsin, Chistopol, Kurgan, Novonikolaevsk.

<sup>3</sup> Moscow, Nizhni-Novgorod, Petrograd, Ribinsk, Yaroslav, Orenburg, Chelyabinsk, Eletz, and Orel.

<sup>4</sup> *Materyali dlya Suzhdeniya o Srednikh za 1908–1911 Vivoze i Vvose Glavneishikh Prodovolstvennikh Produktov po Otdelnim Gubernyam i Oblastyam Rossiskoi Imperii* (Materials for Judging the Average Exports and Imports of the Principal Foodstuffs for the Several Provinces and Terri-

regretted that the criterion we have adopted is not always absolutely reliable, because the areas served by the various exchanges do not coincide with the administrative divisions of the country. Besides, the volume of both export and import of a province may often be so insignificant as to afford no solid basis for determining the character of its market,<sup>5</sup> especially if this market is of nation-wide importance and situated on the boundary of consuming and producing regions (for instance, Eletz). To such a market it is immaterial whether the province in which it is located imports or exports the commodity in question.

Yet this point is of paramount importance to us. First of all, because our index number for rye in the tables given above is mainly for the producing regions, while the areas of consumption, being few in number, are completely submerged in the other set of figures. One might, of course, reduce the number of production markets, but this would involve a definite selection that would prove arbitrary, especially when we consider the influence of the War upon the routes of traffic and exchange, which were often greatly altered. For this reason the best way to ascertain the actual extent of price advances is to construct separate group indexes for production and consumption markets. By combining the two indexes, we may then arrive at an approximately correct national index number. In the second place, the construction of group index numbers is of itself

*tories of the Russian Empire*), Petrograd, 1916. This publication was planned by M. Demosthenov and carried out under his and M. Dolinsky's direction. It served as a model for another publication issued the same year and edited by M. Yashnov: *Proizvodstvo, Perevozki i Potreblenie Klebov v Rossii 1909-1913* (*Production, Transportation, and Consumption of Cereals in Russia in 1909-1913*), issue I. We may mention also *Ischislenie Izbitkov i Nedostatkov Chetirekh Glavneishikh Klebov Urozhaya 1915 Goda v 46 Gubernyakh Evropeiskoi Rossii* (*Computation of Surpluses and Shortages of the Four Principal Grains of the Harvest of 1915 in 46 Provinces of European Russia*), Petrograd, 1916, and *Ischislenie Proizvodstva, Izbitkov, i Nedostatkov Khleba po Gubernyam Evropeiskoi Rossii* (*Computation of Production, Surpluses, and Shortages of Grain for the Provinces of European Russia*), Petrograd, 1916; the latter publication takes into account the figures of the harvest of 1916.

<sup>5</sup> To be more exact, we should say that this shows the neutral, self-sufficing character of the market. But it would only complicate still more our tables and exposition, were we to introduce an additional category of markets into our calculations.



very important, in that it enables us to examine the machinery of the war markets, since a comparison of the two index numbers may lead us to definite conclusions regarding the nature of the connection between producing and consuming areas.

In view of the importance of a correct calculation of group indexes and the difficulties we meet in classifying the markets properly, we furnish here two variants of group index numbers. The first gives nine consumption markets, while the second includes only five. Our basis is as follows: Among the rye-consuming markets we have, nominally, Eletz and Orel (both in Orel province), and Orenburg and Chelyabinsk (both in Orenburg province). But the province of Orel imports an insignificant amount of rye (this, it must be assumed, is partly explained by the inadequacy of transport statistics, but chiefly by the lack of information concerning the transport of rye by horse and wagon), while its chief market—Eletz—plays a far more important part for the adjacent areas of production (the provinces of Kursk, Voronezh, and Tambov) than for the province of Orel itself. The province of Orenburg, likewise, imports very little rye (mostly for flour milling) and is close to the province of Samara, a leading area of production. We have therefore thought it proper to classify these four markets among the producing rather than consuming.

We can now examine more closely these two variants.

TABLE 9  
GROUP INDEX NUMBERS FOR PRODUCTION AND  
CONSUMPTION MARKETS

(Prices of 1913 = 100)

	<i>Index number for all markets of Russia</i>	<i>First variant<sup>6</sup></i>		<i>Second variant<sup>7</sup></i>	
		<i>Produc- tion markets</i>	<i>Consump- tion markets</i>	<i>Produc- tion markets</i>	<i>Consump- tion markets</i>
1914, June	104.9	105.1	104.4	104.3	107.9
Second half	113.9	112.7	117.0	112.9	119.2
1915, First half	151.9	149.4	158.2	149.3	165.4
Second half	146.9	142.2	158.8	141.3	181.6
1916, First half	172.5	168.6	182.7	168.4	194.7
July	177.5	172.6	190.2	172.3	205.8
August	197.7	195.5	203.2	195.0	211.9

<sup>6</sup> Eletz, Orel, Chelyabinsk, Orenburg treated as consumption markets.

<sup>7</sup> The same places treated as production markets.

The result is instructive. Although the second variant seems to us more correct, the first also shows clearly the essential nature of the problem. First of all, when we bear in mind that the index numbers for our none too numerous consumption markets are symptomatic of price movements in central, northwestern, and northern Russia, an immense area, the undoubtedly lower rate of increase in the price of rye shown by our general index number for all markets will become clear. We are inclined to believe that the index number for the consumption markets in the first variant is that which ought to serve as the general index number.

In the second place—and this is most important—the index numbers of the consumption markets, both in the first and the second variant, are throughout higher than the index numbers of the production markets. This shows that the consumption markets felt a far greater degree of shortness of supply relative to demand than was observed in the producing areas. At times the connection between the two market groups appears to be entirely broken. This becomes especially clear when we compare production and consumption index figures for the first and second half of 1915. In the production markets we then observe a decline in prices, while the consumption markets show an advance, which becomes striking in the second variant. The impression is thus gained that the consumption markets break away from the production markets, or, again, carry them along. When we study the monthly index numbers, we see also the influence of production upon consumption markets, but this influence is soon paralyzed. Here is an example (taken from variant 2):

#### MONTHLY INDEX NUMBERS FOR 1915

<i>Groups of markets</i>	<i>May</i>	<i>June</i>	<i>July</i>	<i>August</i>	<i>Septem- ber</i>	<i>Octo- ber</i>	<i>Novem- ber</i>
Production	159.1	150.2	130.9	129.5	133.5	139.4	153.1
Consumption	178.8	171.4	143.5	158.4	182.6	191.6	193.6

Generally, we observe the following movements in the differences between production and consumption market index numbers, taking the second variant (Table 9): second half of 1914, 6.3; first half of 1915, 16.1; second half of 1915, 40.3; first half of 1916, 26.3; July, 1916, 33.5; August, 1916, 16.9. In 1914–1915 the difference was increased because of the uneven rate of advance; and in the sec-

ond half of 1915 it was due, on the whole, to the opposite price movements in the two market groups. The reduction of the difference in August, 1916, is noteworthy; this was caused by a sudden upward movement of prices in the production markets.

Turning to the production market group, we are able to furnish a group index number for September, 1916 (211.4 for the first variant and 214.4 for the second), and also to study price movements in eleven markets down to December, 1916. We observe, after the advance in August and September, a drop in most markets, but this is soon followed by a recovery which, in December, has already outdistanced the September figures. For the eleven markets in which we were able to make comparisons, the general index number for September was 211.9, and 216 for December. But it must be noted in this connection that very little reliance can be placed on the grain-exchange figures for this period, as regulated prices had already been established in September for all transactions in grain. It is plain that the market quotations reflect the movements of the regulated rather than really observed prices.

Let us next consider the group of consumption markets. Here we can furnish index numbers for September, 1916, covering the markets of Nizhni-Novgorod, Ribinsk, and Yaroslav; these index numbers were: 310.5, 259.1, 291.7, respectively. For October we have only the Nizhni-Novgorod index number, 326.1. For the production markets we have no index numbers approaching these figures for the corresponding months anywhere. It is also interesting to note the fact that the Moscow index numbers up to February, 1916, and again after June, 1916, fall below those of Petrograd. Generally speaking, the markets in the capitals show a slighter advance in rye than can be observed in the other consumption markets. This was due to the extraordinary measures of the authorities to assure an adequate supply of grain in these cities. But we believe it due also to certain misleading market quotations, which are mostly those of the regulated price, especially after August, 1916. For this reason Nizhni-Novgorod and Ribinsk, being large milling and distributing centers, must reflect much better the actual movement of prices in the regions of consumption.

Lastly, to conclude this discussion of price movements in rye, we shall quote the figures of the Ministry of Agriculture on the movements of local spring and autumn prices for the entire war period.



These figures cover nearly every province, and it is particularly important that we should be able to take the average prices for the five-year period immediately preceding the War as a basis for the construction of our index numbers.

The peculiarities of the data of the Ministry of Agriculture have been already discussed, so that we need not dwell on them at this point. Let us merely state that we have calculated the index numbers for all cereals according to the same method, that is, separately for the black-earth belt and for other sections of the country, and, again, for nearly every important area within each of these sections. All the production markets for the four main cereals are situated in the black-earth belt, even though it cannot be said that every market in this belt is a production market. Considering, however, the relative proximity of the producing and consuming areas in the black-earth belt, we may look upon this belt as a whole as being mainly producing. The necessary reservations to this statement we shall make when we proceed to analyze the price movements of each particular kind of cereal. We may now examine the figures illustrating the advance of the prices of rye (see Table 10).

This table is highly instructive. It fully bears out our conclusions from the study of exchange prices. It proves that there was a strong advance in prices in the spring of 1915 and 1916, and especially in the autumn of 1916. There is a drop in prices in the black-earth area in the autumn of 1915, and a rise in the other parts of the country. (Here it appears that our second variant of index numbers for both production and consumption markets was closer to the truth than the first.) This table also confirms the view that the rate of advance for rye was much weaker in the production markets (black-earth belt) than in the consuming areas. But the most striking figures are those for 1917. They show that in the spring of 1917 (end of April and beginning of May) the price of rye, in the black-earth area, was 3.3 times as high as before the War, and 4.6 times as high in other parts of the country. In the autumn of that year, rye had leaped to 10 times its pre-war price in the black-earth area, and to 16 times that price in other areas. In the central industrial and the White Russian region, the price of rye attained as much as 27 and 23 times, respectively, the pre-war price.



*Wheat.*

Table 11 gives a view of the price movements of wheat, both in the production and consumption markets, the number of markets in each group being almost equal.<sup>8</sup>

TABLE 11  
INDEX NUMBERS OF THE PRICE OF WHEAT

	<i>All markets</i>	<i>Production markets</i>	<i>Consumption markets</i>
1913	100	100	100
1914, June	96.4	95.9	97.0
second half	96.2	95.4	97.2
1915, first half	124.9	120.7	129.6
second half	128.9	121.4	137.0
1916, first half	165.9	159.3	173.0
July	175.7	171.5	180.2
August	197.6	196.8	198.5
September	215.0	212.4	217.7

This table shows that, for wheat, as for rye, the price rose more in the consumption than in the production markets. The rapid advance in the first half of 1915 and 1916 is worth noting. It is remarkable, too, that in July, August, and September, 1916, the rate of increase in the production markets was almost the same as in the consumption markets. This is due to the increase in the rate of advance in the production markets.

For some of the markets we have figures for the last three months of 1916; but most of these prices are only nominal and without any particular interest for us. In order to obtain a complete picture illustrating the movement of wheat prices down to the end of 1917, therefore, we refer again to the data relating to local market prices furnished by the Ministry of Agriculture (see Table 12). This table speaks for itself. It confirms the view that there was a sharper

<sup>8</sup> The following have been taken as production markets: Voronezh, Kiev, Kremenchug, Kurgan, Odessa, Novonikolaevsk, Orenburg, Pokrovskaya Sloboda, Rostov-on-Don, Samara, Ufa, Kharkov, Chelyabinsk.

The following have been taken as consumption markets: Balashov, Saratov, Tsaritsin, Borisoglebsk, Ekaterinburg, Eletz, Kirsanov, Morshansk, Moscow, Orel, Ribinsk, Sizran.

All told, we have here twenty-five different markets.



TABLE 12  
LOCAL PRICE MOVEMENTS OF SPRING WHEAT  
(Winter Wheat in the Lakes Region)

[illegible]

advance in wheat prices in the consumption markets (outside the black-earth zone) than in the production markets (black-earth zone). It shows that in the spring of 1917 there was an enormous rise and that prices had reached extraordinary levels in the autumn of that year. It should be noted, furthermore, that one of the regions in the black-earth zone—the Middle Volga region—shows a heavier increase in prices than other regions in the same zone. But we must bear in mind at the same time that this area includes provinces that are wheat consumers, namely, Nizhni-Novgorod, Kazan, Simbirsk, and to some extent Saratov. In ordinary times, being in the vicinity of rich wheat-growing territory, and having a convenient waterway such as the Volga, the Middle Volga region does not differ markedly from the others. But during the War special conditions arose which made it clearly a consumption market.

We also observe a vast difference between the index number of Tables 11 and 12. This difference cannot possibly be ascribed to the different bases of calculation. The explanation is the following: The Ministry of Agriculture quotes prices only for one particular moment of the autumn (end of November) and spring (end of April and beginning of May), but Table 11 gives us the index number for a period of six months.<sup>9</sup> Moreover, in Table 12, several consuming provinces are included in the category of production markets (this has increased somewhat the figures for the black-earth belt). Lastly we must consider that the prices quoted by the Ministry of Agriculture are not general, but local market quotations. This means that, for the regions outside the black-earth belt, we have prices at which the peasantry are buying, and not selling, wheat imported from other regions; while, on the other hand, for the black-earth belt, these are the prices at which producers sell their wheat. There is nothing surprising in the fact that the movements of the two sets of prices should be so divergent.

<sup>9</sup> Here follow the index numbers of produce-exchange quotations only for the months of April and November of the corresponding years:

<i>Dates</i>	<i>Production markets</i>	<i>Consumption markets</i>
1913	100	100
1914, November	93.6	95.2
1915, April	127.3	133.8
November	136.3	150.4
1916, April	161.0	173.5

*Oats.*

For oats we have at our disposal thirteen production and seven consumption markets.<sup>10</sup> It is to be regretted that records for the entire period for two of the most important consumption markets, Petrograd and Ribinsk, were not available, so that these markets had to be excluded.

From Table 13 it may be seen that down to the beginning of 1916, prices of oats did not rise more in the consumption than in the production markets, but, on the contrary, were somewhat lower. This is to be explained partly by the peculiar composition of our consumption markets for oats; for many of these, while they cannot be classified as production markets, cannot on the other hand be regarded as coming entirely within the category of consumption markets. Rather should they be taken as neutral and self-contained markets. As a matter of fact, if we consider such obvious consumption markets as Moscow or Ribinsk, we obtain an entirely different picture of price movements in the consumption markets. Similarly, price advances in the market of Nizhni-Novgorod regularly outstripped the advance of prices in the production markets. We may,

TABLE 13  
INDEX NUMBERS OF THE PRICE OF OATS

	<i>All markets</i>	<i>Produc- tion markets</i>	<i>Consump- tion markets</i>	<i>Moscow</i>	<i>Ribinsk</i>
1913	100	100	100	100	100
1914, June	102.7	102.9	102.3	105.4	96.7
second half	118.8	120.8	115.1	128.2	130.3
1915, first half	177.0	177.9	175.3	233.6	211.1
second half	177.6	177.9	177.0	231.2	213.9
1916, first half	217.5	212.8	226.2	267.7	(no
July	234.2	227.1	247.4	270.4	more
August	221.4	265.1	283.1	280.2	quoted)
September	299.4	290.7	315.5	(regulated	
October	....	....	339.6	prices)	

<sup>10</sup> The first group includes: Voronezh, Eletz, Kozlov, Kazan, Kremenchug, Morshansk, Orenburg, Saratov, Simbirsk, Tomsk, Ufa, Chelyabinsk, Chistopol.

The second includes: Ekaterinburg, Perm, Kiev, Moscow, Nizhni-Novgorod, Odessa, Rostov-on-Don.



therefore, assume that oats form no exception to the rule that prevailed in respect of rye and wheat.

Examining more closely the situation in the production markets, we observe a strong price advance in January, 1915, and a generally sharp advance during the first half of 1915, down to April-May. Then follows a decline till about August or September, only to give way to another strong upward climb. The end of the spring and beginning of the summer of 1916 show a slight downward movement, but not in all markets, and August and September of that year show a new advance in nearly every market. Then there is a tendency to decline, although not in all markets. It is worth noting also that oats were rising steadily and strongly at Tomsk (Siberia) after June, 1915. Saratov shows an enormous increase in price after June, 1916. On the whole, the rise in the prices of oats was most striking, during this entire period, in the Middle Volga and central agricultural markets.

The situation in the group of consumption markets is very similar. There is an enormous price increase toward October, 1916, at Nizhni-Novgorod (index number 579) and Perm (index number 489). The rise at Odessa and Rostov is comparatively slight and somewhat stronger at Moscow, Ekaterinburg, and Kiev.

We may now consider the figures of the Ministry of Agriculture relating to the movements of local market prices for oats, as shown in Table 14. This table confirms our general conclusions as to the nature of the price movements of oats and affords some idea of the increase of prices in the spring and autumn of 1917. We observe that in the autumn of that year the price of this commodity was about twelve times the pre-war price in the producing areas, and nearly eighteen times in the consuming regions. The Central Industrial region is particularly interesting in this connection, for the price in this region rose to almost twenty-eight times that which prevailed before the War. It should be noted, moreover, that among the producing areas the Middle Volga shows an extraordinary rise.

### *Barley.*

Let us now consider the last of the chief cereals—barley. We have in this case five production markets and three consumption mar-

TABLE 14

## LOCAL PRICE MOVEMENTS OF OATS

Period	Black- earth zone	Black-earth zone					Other regions					Siberia and central Asia	Cauca- sus		
		Other regions	Central agri- cultural	Middle Volga	Lower Volga	Novo- rossisk	South- western	Ukraine	Indus- trial	White Russia	Lakes			Ural	Baltic
Average of autumn and spring prices in 1909-1913															
1914 Spring	98.5	112.7	98.6	98.4	89.2	98.6	110.1	103.0	122.9	111.7	112.5	100	100	100	100
Autumn	115.7	131.6	115.7	123.8	98.1	98.6	127.5	118.2	143.0	128.6	126.1	100.8	132.9	70.6	94.3
1915 Spring	168.5	206.3	168.6	192.1	151.6	139.2	159.7	177.3	235.3	203.9	204.5	150.4	232.3	100.7	127.1
Autumn	155.7	202.5	155.7	173.0	119.7	133.8	173.1	168.2	219.6	218.2	221.6	153.7	189.6	120.3	122.9
1916 Spring	198.6	258.2	188.6	208.0	177.1	167.5	259.1	215.1	277.1	268.8	261.4	211.5	245.1	163.4	171.4
Autumn	270.0	319.0	241.4	303.2	273.9	228.4	271.1	269.7	363.4	313.0	301.1	305.7	304.0	239.2	217.1
1917 Spring	415.7	548.1	411.4	607.9	359.2	336.5	395.9	406.0	752.9	505.2	409.1	510.7	563.0	343.8	368.6
Autumn	1,225.7	1,765.8	1,180.0	1,731.7	1,161.8	821.6	1,222.8	1,133.3	2,776.4	1,527.3	1,361.4	1,743.6	979.2	577.7	721.4

kets.<sup>11</sup> The following table illustrates the situation as regards this commodity:

TABLE 15  
INDEX NUMBERS OF THE PRICE OF BARLEY

	<i>All markets</i>	<i>Production markets</i>	<i>Consumption markets</i>
1913	100	100	100
1914, June	98.3	104.7	87.7
second half	92.0	88.6	98.3
1915, first half	122.4	107.8	146.7
second half	110.6	101.7	125.4
1916, first half	141.2	131.1	157.8
July	147.6	138.8	162.4
August	165.6	152.9	186.8
September	192.2	172.9	224.3

Barley revealed its character as an export commodity more clearly than did wheat, by the rate at which its price advanced in the production markets; thus prices at Odessa, Nikolaev, and Rostov rose especially slowly and slightly, and, after the harvest of 1915, quotations in the first two markets stood even 30 per cent below those of 1913. But the situation was radically different at Kharkov and Kremenchug. Here, prices never sank below the pre-war level, showing a decided tendency to follow the movement of prices in the consumption markets. At Kharkov, after January, 1916, the rise of prices often exceeded even that of the consumption markets.

In the consumption markets we have to note the slight movements of prices at Petrograd after September, 1915. This was due to official regulation, which concealed the real market prices. On the whole, however, Table 15 brings out very strikingly the difference in price movements in the production and consumption markets.

The data of the Ministry of Agriculture relating to local market prices may be discussed next. We find that Table 16 differs very considerably from Table 15. We observe here, as in the case of wheat, peculiar conditions tending to produce marked divergences between the figures of the produce-exchanges and the local market

<sup>11</sup> The first group includes: Kremenchug, Kharkov, Odessa, Nikolaev, and Rostov; the second, Saratov, Orenburg, and Petrograd.



prices. To begin with, let us remember that so great a difference could not be due solely to different bases of computation. The main cause is that many areas in the black-earth belt are consumers rather than producers of barley. Such are the central agricultural, Middle Volga, and Lower Volga regions. Our produce-exchange quotations are taken mainly from the Novorossisk area, and, moreover, from the group of seaport markets, that is, such as had lost practically all their previous importance. Our consumption market prices have been taken chiefly from the Lower Volga and the southern section of the Middle Volga region, adjoining the Don Cossack Territory, that is, an area the consumption character of which was slight. To these considerations must be added the fact that the regulated and maximum prices necessarily had a very marked effect on the produce-exchange quotations. Thus, from April to June, 1915, and from March to August, 1916, Kremenchug furnished quotations of regulated prices, and Rostov quotations suffer from the same defect, especially after January, 1916. Lastly, Petrograd, after September, 1915, quoted only the regulated prices.

When all these factors are taken into consideration, and when we bear in mind that the prices quoted in the reports of the Ministry of Agriculture relate only to a definite moment in the spring (April) and autumn (November), the reason of the wide divergence between the index numbers given in Tables 15 and 16 will become clear. The different nature of the prices furnished in the two tables, moreover, is an important point, that is, general prices in Table 15 and local prices<sup>12</sup> in Table 16. In any case, the vast mass of data available to the Ministry of Agriculture, unaffected by the distorting influence of official price control, regulations, etc., afford a more reliable picture of price movements throughout the country than the bulletins of the produce-exchanges.

From Table 16 it appears that there was a very strong and sharp advance in the price of barley in the spring of 1915. In the autumn we observe a decline, but in the spring of 1916 there was again a sharp upward trend. This trend continues into the autumn of the same year. Lastly, in the spring of 1917, prices in the black-earth zone were already 3.7 times as high as before the War, and 4.6 times in the other parts of the country. In the autumn of 1917 there was a catastrophic rise in barley, namely to 11.3 times the pre-war level

<sup>12</sup> See above, p. 272.

TABLE 16  
LOCAL PRICE MOVEMENTS OF BARLEY

Period	Black-earth zone	Other regions	Black-earth zone				Other regions				Siberia and central Asia	Caucasus			
			Central agricultural	Middle Volga	Lower Volga	South-western	Novorossisk	Ukraine	Industrial	White Russia			Lakes	Ural	Baltic
Average of autumn and spring prices in 1909-1913															
1914 Spring	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Autumn	98.6	103.8	104.8	95.4	81.3	107.8	95.0	104.4	108.2	105.9	106.8	96.8	99.3	116.5	116.5
1915 Spring	102.7	117.8	113.7	105.9	92.0	102.6	70.9	113.2	123.5	115.3	114.5	96.8	75.2	100.7	100.7
Autumn	145.2	178.3	176.5	150.3	130.7	135.1	114.9	157.3	188.0	177.6	175.7	135.8	106.0	140.3	140.3
1916 Spring	135.6	170.8	154.5	143.8	112.0	140.3	103.5	155.9	186.9	182.4	183.5	133.3	116.8	158.9	158.9
Autumn	174.0	223.8	186.2	180.4	141.3	198.7	137.5	191.2	233.8	218.8	220.4	202.5	175.8	196.0	196.0
1917 Spring	232.9	281.0	242.7	245.8	244.0	231.2	188.6	235.2	295.1	285.9	272.8	270.4	265.7	332.4	332.4
Autumn	371.2	464.8	393.1	435.3	338.7	354.5	287.9	404.4	573.7	488.2	368.0	786.8	371.8	321.8	321.8
1918 Spring	1,132.9	1,463.8	1,014.3	1,718.9	1,137.3	998.7	773.0	1,092.6	2,267.7	1,756.5	1,325.2	1,655.3	899.0	1,926.2	1,926.2
Autumn															1,104.6

in the black-earth belt and 14.6 times in other parts of the empire. This table also confirms our previous conclusion that prices rose more in the consumption markets than in the production markets. The rise in the black-earth belt, where the barley-producing provinces are chiefly found, falls appreciably behind the rise of prices in other parts of the country.

*General Remarks on the Price of Cereals.*

The foregoing account will give the reader a sufficiently complete idea of the movements of cereal prices. We have seen that, on the whole, the quotations of the produce-exchanges afford us a fair picture of changes in prices, in spite of the fact that the insufficient number, or lack of typical character, of the markets from which we had to draw our data (this was especially important in respect of the consumption markets), and the effects of price regulation and control, yielded in some cases results that were rather low. Our tables show, furthermore, that we were not confronted with anything that could be called a catastrophe before 1917, even though there was an enormous increase in prices. A catastrophe becomes apparent only in the latter part of 1917. Finally we observe that there was a radical difference between production and consumption markets in the rate and extent of the rise of prices.

*Flour and Grits.*

An analysis of price movements of flour and grits according to the two groups of markets (production and consumption) presents greater difficulties than we found when dealing with grain. A mere comparison of markets importing flour and grits with markets exporting these two articles is likely to obscure many very interesting details in the machinery of prices of products obtained by the conversion of grain. It is evident that price movements in flour and grits are determined not alone by the fact that this or that particular province is an importer or exporter of these commodities, but also by the manner in which provinces exporting them are supplied with the necessary grain. Markets converting grain bought from other markets into flour or grits for export to other provinces are, strictly speaking, much closer to the markets that import flour and grits than are those markets which convert local grain, since the first two categories of markets are, at bottom, consumers of this



particular form of grain. In any event, to facilitate our investigation of the machinery by which the price of flour and grits is determined, it is preferable to divide all the markets into three, instead of two, groups: (a) markets that export flour or grits, as well as grain (having a full supply of their own grain); (b) markets that export flour or grits, but import grain (that is, convert the imported grain into finished products); and (c) markets that import flour or grits (that is, have no flour-milling industry of their own).

### *Rye Flour.*

For this article we have at our disposal a total of twenty-six markets, nineteen of which belong to the group that exports both flour and grain,<sup>13</sup> three to that exporting flour and importing grain,<sup>14</sup> and four to the group importing flour.<sup>15</sup> We thus have here, again, an overwhelming majority of production and very few consumption markets. Let us now study the price movements in the several market groups separately, as shown in the table below:

TABLE 17  
INDEX NUMBERS OF THE PRICE OF RYE FLOUR

<i>Dates</i>	<i>All markets</i>	<i>Markets exporting flour and grain</i>	<i>Markets exporting flour, but im- porting grain</i>	<i>Markets importing flour</i>
1913	100	100	100	100
1914, June	103.6	102.6	101.8	109.5
second half	112.6	111.7	111.2	117.8
1915, first half	146.8	144.5	153.3	153.0
second half	159.1	155.2	163.0	174.4
1916, first half	187.8	183.0	200.9	200.9
July	200.4	193.4	220.5	218.6
August	218.7	211.2	227.8	247.8

This table shows, first of all, that our general index number for flour is rather low, owing to the small number of consumption markets included in the calculation. Yet these markets reflect (and probably in an attenuated degree) the movement of prices in an

<sup>13</sup> Balashov, Borisoglebsk, Kirsanov, Tambov, Morshansk, Kozlov, Voronezh, Kazan, Kiev, Rostov, Samara, Saratov, Simbirsk, Ufa, Chistopol, Kharkov, Kurgan, Novonikolaevsk, and Tomsk.

<sup>14</sup> Ribinsk, Yaroslav, and Orenburg.

<sup>15</sup> Eletz, Moscow, Nizhni-Novgorod, and Perm.

immense consuming area (central, northern, northwestern, and western Russia). We must also consider that many quotations from the bulletins of the produce-exchanges give us an entirely erroneous picture of price movements, because they refer to regulated and fixed prices.<sup>16</sup> This has vitiated the price statistics for the first half of 1916. For July, August, and September, 1916, after the new harvest, prices are quoted more correctly in the bulletins, but later the quotation of flour ceases in practically all markets, a result of the maximum prices prescribed for all transactions.

Table 17 shows that our division of the markets into three separate groups was of great practical value. We actually observe a considerable divergence of price movements in the two groups of markets exporting flour. It appears also that markets which export flour, but import grain, come much closer, in regard to the rise in the price of flour, to markets that import flour, than those which export both flour and grain. At times the price in the markets of the first category even exceeds the price in the purely consumption markets. The table shows also that the rise of price in markets importing flour reached a level higher than that attained in all markets exporting flour taken together.

An analysis of price movements in each separate market is not within the scope of the present inquiry. We shall, therefore, confine ourselves here to these two subjects: that of price movements after August, 1916, and that of the ratio of the movements of flour and grain prices.

Regarding the first, we may say that we have available up to the end of 1916 the produce-exchange quotations for several markets.<sup>17</sup> If we eliminate those of Kharkov and Moscow as having furnished obviously fictitious quotations, we still have at our disposal a sufficient number of markets to give an idea of the rise of prices at the close of 1916. Balashov, in the province of Saratov, gives us, for October, 1916, an index number of 273.7, and 210 for December; Kazan, 343.7 for October and 317.6 for December; Samara,

<sup>16</sup> The Kharkov quotations do so, as stated clearly in the bulletins for the first half of 1916; and also those of Rostov-on-Don, where prices were those fixed by the Special Council on Food Supply; and there is some doubt about a few other markets, even though their bulletins do not specifically state that their quotations are only nominal.

<sup>17</sup> Balashov, Kazan, Samara, Simbirsk, Ufa, Kharkov, Moscow, and Perm.

255.1 and 277.8, for the same months; Simbirsk, 257.8 and 298.5; and Ufa, 316.3 and 309.6. When we consider the distortion of price quotations due to price control and regulation, we may confidently infer that at the close of 1916 the price of rye flour in the production markets stood at least three times as high as in 1913.

For markets importing flour we have only the Perm figures extending to the close of the year. Here, the index numbers were 360.5 for October and 405.2 for December. For the month of October we have also the figures for Nizhni-Novgorod and Ribinsk, which were, respectively, 353.6 and 245.8. It must be assumed, therefore, that flour prices in the consumption markets were at least three and a half times as high as in 1913.

As for 1917, we regret that we have been unable to obtain a sufficient quantity of verified data. Some information may be gleaned from M. Pervushin's work.<sup>18</sup> But this material, so far as it deals with 1917, unfortunately contains many self-contradictory figures, and they must be used with caution.

For the second half of 1917 we have no data available.

Let us now consider the second question—the ratio of the comparative movements in flour and grain prices.

From the preceding tables (7, 9, and 17) we have learned that the index number for rye flour lagged behind that for grain only during the first and second half-years of the War. Again, we found that flour prices increased during the following period more rapidly than prices of grain. A closer examination of these figures (Table 7) shows that flour prices had a tendency to outstrip the rising grain prices as early as October–November, 1914, but it was only after June, 1915, that this tendency became permanent.

Taking all the markets separately, we may state that, however great the differences in flour and grain price movements may have been during the first half-year of the War, there is a similarity during the second half-year in all the movements, in that grain prices increase more rapidly than flour prices. But later on we find the opposite tendency at work in nearly every market.

<sup>18</sup> S. A. Pervushin, *Volnya Tseni i Pokupatel'naya Sila Russkago Rublya v Godi Revolutsii, 1917–1921* (Competitive Prices and the Purchasing Power of the Ruble during the Revolution, 1917–1921), in the volume *Denezhnoe Obrashchenie i Kredit v Rossii i za Granitse* (Money Circulation and Credit in Russia and Abroad), Petrograd-Moscow, 1922, I, 57–147.



*Wheat Flour.*

For this commodity we have available the following groups of markets: (a) markets exporting both flour and grain;<sup>19</sup> (b) markets exporting flour and importing grain;<sup>20</sup> (c) markets importing flour.<sup>21</sup> This gives us a total of twenty-four markets.

TABLE 18

## INDEX NUMBERS OF THE PRICE OF WHEAT FLOUR

	<i>All markets</i>	<i>Markets exporting grain and flour</i>	<i>Markets exporting flour and importing grain</i>	<i>Markets importing flour</i>
1913	100	100	100	100
1914, June	98.3	96.9	98.9	99.9
second half	100.1	99.0	100.7	101.1
1915, first half	123.3	123.8	125.3	121.0
second half	133.8	129.0	142.4	134.1
1916, first half	163.3	153.3	175.1	168.9
July	174.8	165.0	184.7	181.7
August	188.5	184.0	194.8	190.2

This table demonstrates even better than Table 17 the advantage of classifying all markets under these three distinct groups. It shows that, with the exception of the second half of 1914, when prices in the markets that imported flour exceeded prices prevailing in the two other market groups, the advance of flour prices was greatest in those markets which exported flour and imported grain. It is true that this result is due partly to the fact that we put Eletz in the group that exported flour and imported grain; it would have been more correct to put it in the group of markets consuming flour, since the exports of flour from the province of Orel, in which Eletz is situated, amounted only to 16,400 puds a year (according to the average figure for the period 1909–1913), whereas the imports of grain were as high as 2.7 million puds, in other words, all the grain imported into this province was used up in the production of flour for local consumption.<sup>22</sup>

<sup>19</sup> Ekaterinodar, Armavir, Rostov, Orenburg, Pokrovskaya Sloboda, Odessa, Kharkov, Kremenchug, Voronezh, Kiev, Tomsk.

<sup>20</sup> Saratov, Balashov, Ribinsk, Yaroslav, Nizhni-Novgorod, Eletz.

<sup>21</sup> Ufa, Kozlov, Borisoglebsk, Ekaterinburg, Perm, Kazan, Moscow.

<sup>22</sup> In the province of Orel are located the famous Bryansk and Maltsev Works, which are among the largest in Russia.

It is to be regretted that we have not been able to obtain data relating to price movements in wheat flour extending to the end of the War.

A comparison of price movements in wheat and wheat flour yields the following results:<sup>23</sup> During the first half-year of the War wheat flour advanced more rapidly than wheat. Later, from January till May, 1915, the opposite is true. From June till October wheat flour again advances more than wheat, and from November, 1915, till August, 1916, flour lags behind the grain, although only slightly.

Comparing price movements of wheat and flour in the several markets separately, we obtain the following results: At Eletz, Voronezh, Kremenchug, Borisoglebsk, Kharkov (excepting October–December, 1914), flour rises more than grain. To these markets may be added that of Moscow, where, with the exception of January, February, April, and May, 1915, wheat lags behind flour. At Balashov and Kiev (with the exception of July, August, and September, 1915), grain is all this time running ahead of flour. All the other markets (Odessa, Orenburg, Saratov, Rostov, Ufa, Ekaterinburg, and Ribinsk) show a great variety of changes in different periods. Still, they all reveal that wheat rose more than flour in the first half of 1915 (except at Orenburg) and that then, till September–October, the ratio was reversed (except at Ribinsk). At Ribinsk and Orenburg we find prices moving at a certain uniform rate. In the former market, wheat lags behind flour in the first half-year of the War, and later the situation is exactly reversed; in the latter market, wheat lags behind flour till September, 1915, and then the ratio is reversed.

#### *Buckwheat Grits.*

For buckwheat grits we have the following markets: (a) those exporting both grits and whole grain;<sup>24</sup> (b) those importing grain, but exporting grits;<sup>25</sup> and (c) those importing grits.<sup>26</sup> First let us consider the index figures for those months only for which we have the figures relating to Kirsanov and Kozlov (see Table 19). After-

<sup>23</sup> See Table 7.

<sup>24</sup> Kazan, Kremenchug, Tomsk, Ufa, Kharkov, Kiev, Voronezh.

<sup>25</sup> Kirsanov and Kozlov. (It is a matter of regret that we are able to cite figures for these markets for a very limited period only.)

<sup>26</sup> Moscow, Rostov, Ribinsk, Saratov, Yaroslav, Nizhni-Novgorod, Eletz, and Orel.

ward, having eliminated these two markets from our calculations, we shall construct index numbers for the two market groups of *a* and *c* only, covering however the entire period under investigation (see Table 20).

Regarding Table 19 we must point out that Kozlov and Kirsanov were obviously furnishing quotations of regulated prices after February, 1916. Upon the whole, we observe that, with the exception of December, 1914, January and February, 1915, and March, April, and May, 1916, prices in those markets which export grits, but import the whole grain, advance more than prices in the purely consuming markets. Further, grits increase least in price in those markets which export both the grits and the grain.

TABLE 19  
INDEX NUMBERS OF THE PRICE OF BUCKWHEAT GRITS  
(including the markets of Kirsanov and Kozlov)

	<i>All markets</i>	<i>Markets exporting grits and grain</i>	<i>Markets exporting grits and importing grain</i>	<i>Markets importing grits</i>
1913	100	100	100	100
1914, October	145.7	137.5	160.0	149.4
November	147.8	139.5	158.4	152.5
December	157.7	144.6	163.3	167.7
1915, January	175.1	162.6	176.1	185.8
February	183.5	175.2	187.0	189.8
March	187.9	181.1	196.0	191.9
April	196.2	186.0	209.7	201.8
November	230.1	210.5	247.3	242.7
December	236.1	217.2	251.1	248.9
1916, January	238.5	220.2	257.6	249.8
February	239.7	219.3	256.6	253.3
March	246.0	225.1	256.6	260.4
April	249.1	227.9	256.6	265.9
May	256.3	233.9	256.6	275.8

Table 20 requires no comment or explanation. As regards the movement of prices after August, 1916, we have at our disposal the produce-exchange quotations of Kazan, Kremenchug, Ufa, Moscow, Rostov, and Eletz, but the prices given by Kazan, Moscow, and Rostov are, apparently, the officially regulated prices. For the



TABLE 20  
INDEX NUMBERS OF THE PRICE OF BUCKWHEAT GRITS  
(including the markets of Kirsanov and Kozlov)

	<i>All markets</i>	<i>Markets exporting grain and grits</i>	<i>Markets importing grits</i>
1913	100	100	100
1914, June	114.5	113.6	115.2
second half	136.9	130.5	142.5
1915, first half	191.7	181.4	200.8
second half	215.6	197.8	231.1
1916, first half	247.8	227.3	265.5
July	265.4	235.8	291.2
August	270.9	247.8	291.2

month of December, 1916, we obtain the following index numbers: Kazan 267.3, Kremenchug 248.2, Ufa 630.8 (for dried grits), Moscow 269.1, Rostov 237.2, and Eletz 308.4 (383.6 in November). In addition to these, we may note Voronezh, where the index number for October was 318.2.

Leaving out of our present consideration the market of Ufa as one with an exceptional grade of grits and an exceptional range of prices, and taking into account the fact that free prices were always higher than regulated prices, it may be assumed that the price of buckwheat grits toward the end of 1916 stood three to three and a half times as high as the 1913 price in the production markets, and four times as high in the consumption markets.

We even believe that our calculations are too optimistic, for during that period, owing to the heavy demand of the army, buckwheat grits became almost unobtainable for the civilian population. Among the production markets, those in the east (Ufa and Kazan) show the greatest rise of prices; next follow the southern markets (Voronezh, Kharkov, and Kremenchug). Among the consumption markets, the greatest price advance was observed in those of Rbinsk, Yaroslav, Saratov, Nizhni-Novgorod, Moscow, and Eletz.

#### *Millet.*

For millet, we have the following market groups: (a) markets exporting both millet grain and millet grits;<sup>27</sup> (b) markets exporting

<sup>27</sup> Kremenchug, Voronezh, Saratov, Kiev, and Ufa.

millet grits, but importing millet grain;<sup>28</sup> and (c) markets importing millet grits.<sup>29</sup> This classification is perhaps not altogether exact, but upon the whole, it makes a fairly correct distinction between the different markets.

TABLE 21  
INDEX NUMBERS OF THE PRICE OF MILLET

	<i>All markets</i>	<i>Markets exporting millet grits and millet grain</i>	<i>Markets exporting millet grits, and importing millet grain</i>	<i>Markets importing millet grits</i>
1913	100	100	100	100
1914, June	110.0	102.4	113.6	111.7
second half	125.7	117.1	135.3	121.9
1915, first half	171.4	155.4	185.1	169.3
second half	186.6	163.3	203.4	186.5
1916, first half	216.1	189.8	229.6	220.6
July	239.2	207.0	255.1	245.4
August	252.6	235.1	260.4	256.7
September	275.8	258.5	286.0	277.6

It will be seen from Table 21 that there was the same regularity in price movements that we observed in the case of buckwheat grits and wheat flour: prices advanced farthest in those markets which exported millet grits and imported millet grain.

To judge of the subsequent movement of prices, down to the end of 1916, we have at our disposal the produce-exchange quotations for only four markets—Kremenchug, Ufa, Morshansk, and Eletz. In December, 1916, the index figures for the four markets were as follows: Kremenchug 265, Ufa 374, Morshansk 485, Eletz 349. On the basis of such data it becomes, of course, difficult to arrive at exact conclusions regarding the general price level for millet. In all probability the price of millet advanced in those markets which exported millet grits and millet grain to three or three and a half times the pre-war price, and in the other markets, it may be assumed, to not less than four times that price.

Some fragmentary data covering the first half of 1917 may be gleaned from the previously mentioned work of M. Pervushin.<sup>30</sup>

<sup>28</sup> Simbirsk, Sizran, Tambov, Kirsanov, Kozlov, Morshansk, and Orenburg.

<sup>29</sup> Eletz, Moscow, Nizhni-Novgorod, Orel, Ribinsk, Yaroslav, Rostov, Kharkov.

<sup>30</sup> See p. 282, n. 18.

These show that prices of millet during the period of January–June (July), 1917 were: at Moscow, 8 rubles the pud; Petrograd, Simbirsk, Saratov, and Penza, 6 rubles. This means that at Moscow the price of millet rose to 6 times, at Petrograd to 4½ times, at Simbirsk to 7 times, and at Saratov and Penza to approximately 5 times the pre-war price.

### *Salt.*

The movement of index numbers for foodstuffs has already been shown in Chapter III (see Table 5). Here, we shall confine ourselves to analyzing the price movements of the several different commodities divided into the two groups of markets, production and consumption.

In dealing with salt, we have classified Orenburg, Perm, and Rostov among the production markets, and Kazan, Ribinsk, Saratov, Sizran, Yaroslav, Tomsk, and Ufa among the consumption markets.

TABLE 22  
INDEX NUMBERS OF THE PRICE OF SALT

	<i>All markets</i>	<i>Production markets</i>	<i>Consumption markets</i>
1913	100	100	100
1914, June	106.8	100.7	109.5
second half	119.5	100.7	128.2
1915, first half	169.1	108.8	194.9
second half	228.4	129.0	271.0
1916, first half	332.7	165.9	404.2
July	351.8	186.8	423.9
August	360.6	188.8	434.1
September	366.6	209.5	434.0

The situation revealed by this table is indeed surprising. But it will be found even more so when we consider price movements in the various markets separately. It is found that at Orenburg the price remained stationary, on the level of 1913, until February, 1916. After that it makes an extraordinary upward jump (110 per cent in March) and finally, from July to December, 1916, it stands 90 per cent higher than in 1913. At Perm the rise was far greater, especially after June or July, 1915. In August, 1916, the index number was 259, remaining at this level till the close of that year.



Rostov shows a more considerable price advance than Orenburg till March, 1916, but lags behind Perm. After March, 1916, down to October, Rostov becomes the cheapest market, after which it ranks on the same level with Orenburg in the rise of the price of salt (index number 190).

Very different is the picture presented by the consumption markets, with the exception of Ufa, which, both as regards the movement and rate of price advances, is very much like Perm. In this market group we observe almost throughout the period under investigation a precipitate and ceaseless rise of prices. It is interesting to note here that we find in practically all the consumption markets that the close of 1915 was the moment of a particularly sharp rise. Thus at Kazan the index number, which stood at 302.6 during December, 1915, suddenly jumped to 421.1 in January, 1916; in August, 1916, it rose to 559, and between September and the end of the year it hovered about 493.4 (maximum prices having been imposed). At Ribinsk we find a strong advance from September, 1915 (289) to October, 1915 (465). In September, 1916, the index number of this market had risen to 542. At Yaroslav there was a precipitate rise during the same period (the September, 1915, index number is 277; October, 382; November, 469; December, 562). From January to August, 1916, this market shows stationary prices (562), thanks to price regulation. But in September the index number mounts as high as 604. At Saratov we have an especially strong upward movement in the beginning of the spring of 1916 (index number for February, 404; March, 566; April, 667). After July, 1916, prices in this market are stabilized till the end of that year (571), as a result of price regulation. It is interesting to note that at Sizran the price in September, 1916, stood only three times as high as that prevailing before the War. Prices in this market rose particularly in the October–November period of 1915. A similar rate of advance, about October, 1916, is observed in the market of Tomsk. Here, again, there was a considerable upward movement in October–November, 1915.

#### *Butter.*

For butter, we have only five markets that we are able to trace throughout the war period, namely: Kazan, Tomsk, Moscow, Petrograd, and Vladivostok. Tomsk is only a production market.

After making certain comparisons, and upon mature consideration, we have decided to include Kazan in the group of butter-production markets. Our justification we find in the fact that the province of Kazan imports annually not more than 3,600 puds of butter (as the railway statistics are rather inaccurate, it may even be that Kazan province is an exporter of butter); that it is situated among the provinces that export butter (even though in insignificant amounts);<sup>31</sup> and that, in respect of the nature of its price movements, Kazan comes very close to the market of Vologda, one of the chief markets for butter, at least for the entire period for which we were able to make the necessary comparisons.

The situation will then appear as shown in Table 23.

	<i>All markets</i>	<i>Production markets</i>	<i>Consumption markets</i>
1913	100	100	100
1914, June	100.1	101.6	99.0
second half	103.9	98.7	107.5
1915, first half	109.7	111.1	108.9
second half	146.3	133.5	154.9
1916, first half	205.5	178.9	223.0
second half	364.1	290.5	413.1

We thus observe that there was a sharp rise in the price of butter, not during the first half of 1915, as was the case with cereals, but during the second. Price movements in particular markets were as follows:

	<i>Petrograd</i>	<i>Moscow</i>	<i>Kazan</i>	<i>Tomsk</i>	<i>Omsk</i>	<i>Odessa</i>
1913	100	100	100	100	100	100
1914, December	121.7	130.2	110.6	95.4	....	....
1915, April	105.5	107.3	118.5	105.7	91.7	107.8
August	131.6	136.4	127.6	120.2	122.6	....
September	144.4	154.9	121.5	130.8	134.4	....
October	174.7	180.4	138.2	129.7	....	....
December	261.6	247.6	188.3	129.7	....	....

<sup>31</sup> Nizhni-Novgorod, Ufa, Vyatka, and Simbirsk.

	<i>Petrograd</i>	<i>Moscow</i>	<i>Kazan</i>	<i>Tomsk</i>	<i>Omsk</i>	<i>Odessa</i>
1916, February	245.0	249.0	210.4	128.0	....	....
July	244.2	251.6	246.2	137.1	135.7	....
August	353.7	352.0	248.6	172.7	135.7	....
September	438.9	452.5	318.3	208.2	204.0	281.6
October	564.2	545.0	363.0	208.2	204.0	404.1
November	687.6	679.1	518.4	208.2	204.0	468.7
December	719.5	705.0	648.5	208.2	....	515.5

The reader is invited to consider one particular detail of this table: in August, 1915, prices in all markets showed, if not exactly an equal advance, at least a very similar rate of advance. After September, and especially October, we observe a strong upward trend in all the markets of European Russia, and a decline in prices in the Siberian markets. Later, prices rise also in Siberia, but neither the rate nor the extent of this upward movement can be compared in the least with the precipitate increase in the price of butter observed in European Russia.

The fragmentary data regarding butter prices computed by M. Pervushin for the first half of 1917 justify the belief that these prices continued to rise. We are inclined to think that butter was then about eight times dearer than in 1913 at Petrograd and Moscow, and approximately seven times at Kazan.

### *Beef.*

When we come to beef prices, we are confronted with a number of difficulties. All we have available for our study in this field are five markets: Moscow, Petrograd, Perm, Orenburg, and Tomsk. Of these markets, Petrograd and Moscow can be traced only up to May-June, 1916. Besides, all these markets reveal the effect of price regulation in a marked degree. Petrograd, for example, shows absolutely stationary levels between August, 1915, and April, 1916, although every inhabitant of that city is perfectly well aware that the only thing that remained stationary during that period was the officially prescribed price, but not the prices that they were actually forced to pay, if they wished to obtain meat. Moscow, likewise, appears to have furnished official prices exclusively after March, 1916.

Therefore, if we were to use in our construction of a general index number of beef prices the quotations of Petrograd and Moscow, we could bring such an index number down only to May, 1916, and



would, consequently, have to terminate our table for the aggregate of all foodstuffs at this period. To avoid this, we have eliminated the markets of the two capital cities altogether and are left with but a single consumption market—Perm. As a production market, we have had to rest satisfied with Orenburg. The general index numbers for beef in our tables were computed on the basis of data for these two markets alone.

Needless to say, Perm itself cannot possibly reflect clearly the movement of prices in all the consumption markets, in particular for that period for which reliable quotations were still available as regards the markets in the capital cities. Nor can we regard Orenburg as absolutely suitable for the part we have assigned to it in the present investigation. Unfortunately, the reports on the markets of the central agricultural area were found to be far too fragmentary.

In computing our general index number of meat prices solely on the basis of price movements in two markets (Perm and Orenburg), we have, naturally, not been able to elucidate exactly the nature of price movements for this commodity throughout the empire. But if we consider the fact that Petrograd quotations were for a long period only nominal, and not actually paid prices, we shall realize that even an index constructed with data covering every market could not claim absolute accuracy.

TABLE 25  
INDEX NUMBER OF THE PRICE OF BEEF

	<i>All markets</i>	<i>Production markets</i>	<i>Consumption markets</i>
1913	100	100	100
1914, June	123.5	138.5	108.5
second half	102.3	103.9	100.6
1915, first half	121.8	129.8	113.8
second half	122.5	118.0	127.1
1916, first half	195.1	189.0	201.2
second half	228.7	229.2	228.3

Table 25 shows that during the first half-year of the War meat prices rose more in the production markets; during the second half-year, the advance in meat prices proceeded at almost the same rate in the consumption as in the production markets; and during the

third and fourth half-year periods, the price increase in the consumption was more considerable than in the production markets. Again, from the fragmentary data of M. Pervushin's work, it may be inferred that meat prices during the first half of 1917 reached the following levels:

at Petrograd	8.2 times pre-war prices
at Moscow	7.5 times pre-war prices
at Tambov	9 times pre-war prices
at Kazan	6 times pre-war prices
at Simbirsk	6.8 times pre-war prices
at Saratov	6.8 times pre-war prices

We believe, however, these figures to be exaggerated. It can scarcely be supposed that meat at Petrograd and Moscow reached a price more than five or six times as high as the pre-war price.

#### *Sugar.*

For lump sugar we have data for eleven markets.<sup>32</sup> For granulated sugar we have, in addition to these markets, that of Moscow, but as quotations by the Moscow produce-exchange cease in January, 1916, we cannot avail ourselves here of this market. Of the eleven markets, a majority (Kiev, Odessa, Kharkov, Rostov, Petrograd, Saratov, and Ufa) furnish the prices till August, 1916 (Kiev, Odessa, and Petrograd even as late as November); but others (Voronezh, Ekaterinburg, Kazan, and Armavir) quote only as late as May, 1916. We have thus been compelled, in computing our general index numbers for sugar, to rest satisfied with only seven markets, of which three (Kiev, Kharkov, and Odessa) were production markets and four (Petrograd, Rostov, Saratov, and Ufa) consumption markets. The index numbers for lump and granulated sugar are given in Table 26.

Table 26 hardly calls for comment, and it shows, even though in a lesser degree, all the peculiar features that we observed in a number of previous tables. It remains only to state that prices in very many markets at the close of 1915 and afterward bear obvious traces of regulation. It must be noted, furthermore, that the regulated prices of sugar did not possess a purely nominal character to

<sup>32</sup> Voronezh, Kiev, Odessa, Kharkov, Armavir, Ekaterinburg, Kazan, Petrograd, Rostov, Saratov, and Ufa.

TABLE 26  
INDEX NUMBERS OF THE PRICE OF LUMP  
AND GRANULATED SUGAR

	<i>All markets</i>	<i>Production markets</i>	<i>Consumption markets</i>
1913	100	100	100
1914, June	101.0	101.2	100.9
second half	104.8	102.6	106.5
1915, first half	117.5	115.2	119.2
second half	132.7	127.9	136.4
1916, first half	149.0	144.7	152.2
July	147.2	143.9	149.6
August	149.0	148.1	149.6

such an extent as the regulated prices of other foodstuffs, as price regulation in the sugar market proved quite successful. Nevertheless it is a fact that our index numbers minimize the actual price advance of this commodity. Were we able to ascertain the prices charged for sugar in the rural districts, it is certain that we should obtain a far more melancholy picture.

Concerning the increases in the price of sugar toward the end of 1916 we may gather some data from the last (November) figures for Kiev, Odessa, and Petrograd. But here, again, we are unfortunately confronted with the regulated prices. These, in November, stood above the 1913 prices: at Kiev, by 112 per cent for granulated, and by 109 per cent for lump sugar; at Odessa, by 62 per cent for both kinds; and at Petrograd, by 34 per cent for granulated, and by 45 per cent for lump. We believe that the Kiev regulated prices best reflect the actual prices.

To conclude our discussion of sugar prices, we shall consider the relationship that existed between the price movements of lump and granulated sugar. We find that, in the consumption markets, lump sugar throughout this period advances more rapidly than granulated. And in the production markets we observe the same situation, with insignificant exceptions. These exceptions occur in December, 1915, and January, 1916, followed by April and May, 1916.

#### *Conclusion.*

Let us now endeavor to draw certain general conclusions from the above discussion, in spite of the incompleteness of our data. In the



first place, we have unquestionably seen a general tendency of prices to increase. This tendency furnishes the general background against which the play of the partial rise and fall of prices takes place. As time goes on, however, these partial fluctuations serve less and less to conceal the fundamental trend in the movement of prices, and finally disappear altogether. We witness an irresistible, uncontrollable rise of prices practically unaffected by any downward movement. Nevertheless we cannot, until the second half of 1917, point to any catastrophic dearth of foodstuffs, save in a few instances. A real catastrophe appears only in the latter half of that year. If the prices of rye, wheat, oats, and barley, during the first three years of the War, rose in the black-earth belt to 3.3, 3.3, 4.2, and 3.7 times, respectively, the pre-war prices, to jump to 10.8, 10.7, 12, and 11.3 times those prices during the latter half of 1917, we are undoubtedly in the presence of a catastrophe.

In the second place, prices showed an unquestionable tendency to advance more strongly and decline less considerably in the consumption than in the production markets. The only exception to this rule we observe in those production markets which depend upon outside raw material. In these markets we find, in the majority of cases, a more noticeable advance in prices of finished products than in the markets of areas where these products are consumed. But even if the soundness of this conclusion were doubted, in view of the powerful influence of price control and regulation in the consumption markets, it still remains certain that prices of finished products advanced more in those production markets which imported their raw materials, than they did in those production markets which had at their disposal local raw materials. It is equally certain that prices in the latter group of markets did not keep pace with the advance of prices in the consumption markets, for, if we find this phenomenon in spite of a price regulation that distorted (in the direction of minimizing) especially the prices in the consuming areas, it stands to reason that, if the price that actually prevailed were available, we should see the same law manifested even more clearly.

In the third place, let us note a few details of price movements. To begin with, there is the interesting fact that during the first three half-yearly periods of the War the prices of cereal products rose more rapidly than those of other foodstuffs.

Another striking feature is that during the War a phenomenon

that used to characterize the Russian grain market disappears—the relatively low price of grain in the autumn as compared with the spring.

Further, we have to note the upward jump of prices at the very beginning of 1915 and a considerable rise in cereal prices in the first half of 1915. It is, moreover, worth noting the fact that the tendency of grain prices to fall after the 1915 harvest quickly came to an end. Evidently there was at work some powerful combination of causes that kept driving prices upward in spite of the harvest. Lastly, it is interesting to observe a certain slackening in the advance of grain prices in the first half of 1916 and an upward jump in August–September, 1916. Also, we should note the particularly strong rise in the prices of grits, oats, and rye products, and the fact that it was only toward the close of the second year of the War that the prices of wheat and barley commenced to rise at anything like the rate seen in the prices of rye and oats.

Lastly, as regards the non-cereal group, we have to note an accelerated advance toward the close of the second year of the War, in connection with the precipitate rise of butter (after the autumn of 1915) and meat (after the first half of 1916). The extraordinary rise in the price of salt and in the very moderate increase in the price of sugar are also points of great interest.

In the succeeding pages we shall endeavor to explain all these phenomena in greater detail.

## CHAPTER V

### PRODUCTION OF FOODSTUFFS

#### *Scarcity of Labor.*

WE must now indicate in the most general terms the basic factors that influenced the production of foodstuffs. Further details the reader will find in the volume on agriculture.<sup>1</sup> Among these factors, the greatest weight must naturally be attached to the labor shortage caused by the War. The contingent of men called to serve in the army is shown in Table 27.<sup>2</sup>

TABLE 27  
NUMBER AND PERCENTAGE OF MOBILIZED MEN

	1914	1915	1916	1917 (middle of the year)
Number of men serving with the colors	6,485,000	11,195,000	14,195,000	15,070,000
Percentage of male population of working age	14.9	25.2	35.7	36.7

It will be seen that the percentage of the male working population called to the colors was considerable, although we must bear in mind a few facts that will weaken the impression created by these large figures. In the first place we must remember that Russia unquestionably had a surplus of labor. Part of this surplus used to emigrate permanently or seek seasonal employment abroad. Others sought new homes in Siberia, and still others, remaining at home, had to accept the poorest kind of employment to escape absolute

<sup>1</sup> See A. N. Antsiferov, A. D. Bilimovich, M. O. Botchev, and D. N. Ivantsov, *Rural Economy in Russia during the War* (Yale University Press, 1930), in this series of the "Social and Economic History of the World War."

<sup>2</sup> These figures are borrowed from Prokopovich quoted in Kondratiev, *op. cit.*, pp. 41, 72. For a different computation of the number of mobilized men see General N. N. Golovine, *The Russian Army in the World War*, and S. S. Kohn, *Vital Statistics of Russia during the War*, in this series of the "Social and Economic History of the World War."



idleness. But we must not overestimate the importance of emigration, the more so as the bulk of it was provided by Poles, Letts, Lithuanians, and Jews, that is, inhabitants of territories which were mostly occupied by the enemy in the summer of 1915. Nor should we exaggerate the number of persons going abroad every year in search of seasonal work (about 300,000 to Germany, for instance), nor the number of Siberian settlers, of whom there were about 200,000 in 1913. The War, in any case, put a stop to emigration, colonization, and temporary labor in foreign countries, and thus left in Russia 600,000 or 700,000 more workers than usual. As to the "invisible" surplus of labor, we are unable to arrive at reliable figures. But we may take it to have been probably about three to four millions. The mobilization of an equivalent number of men could not, therefore, affect the labor market seriously, at least in point of quantity, if not quality.

In the second place we have to consider the influx of refugees from the occupied or threatened territories. At the beginning of 1916 their total was in excess of three millions, according to the data prepared by the Union of Towns. An inquiry of the Special Council on Food Supply brought replies from 779 cities showing an increase in their population due to the War of about 1.5 million in October, 1915. We believe, therefore, that for the whole of the empire the number of war refugees must have been far in excess of 3 millions.<sup>3</sup>

In the third place, the shrinkage in the supply of labor was to some extent made good by the utilization of prisoners of war. At the beginning of 1916, about 700,000 prisoners were at work in Russia, and it was intended to increase this number to 870,000. Toward the close of that year, it is safe to conclude, there were a million prisoners at work.

If we reckon the number of refugees capable of work (a large proportion of the refugees were women and children), the prisoners of war, the hands retained in the country on account of the closed frontiers, which prevented their seasonal employment abroad, the influx of Chinese labor, and, finally, the "invisible" surplus of workers throughout the country, the most optimistic estimate would

<sup>3</sup> See on this question *Obzor Deyatelnosti Osobago Soveshchanya po Prodoovolstvennomu Delu* (Report of the Special Council on Food Supply), Petrograd, 1916, Appendix, p. 82; also Prokopovich, *op. cit.*, p. 111.

fail to yield a figure equal to that called to the colors in 1914. It is evident, therefore, that the mobilizations of 1915–1917 must have depleted the supply of labor available for carrying on the economic activities of the nation.

Such a conclusion seems the more reasonable when we observe that people were drafted not only for active service at the front, but likewise to dig trenches, build roads, convey stores, and for other such services in connection with the War. These burdens rested heaviest upon the population of the provinces near the war zone (Volhynia, Podolia, Bessarabia, etc.), even though similar duties were often imposed upon the people far in the interior. As for transport services (supply of horses, vehicles, and drivers), the call for these finally extended to the inhabitants in every section of the country where army supplies were being collected and stored.

Consequently, the withdrawal of workers from productive tasks in the course of the War was so extensive as to absorb apparently the entire surplus of labor, besides affecting in a very serious manner that supply which was indispensable if productive work was to go on. There was only one solution of this problem, and this was the utilization of the labor of women, youths, and the aged.

Let us inquire where, and from what moment, the labor scarcity in agriculture was felt and who suffered most from it. We must note in the first place that the situation was not the same throughout Russia even before the War in respect of scarcity or excess of labor. Conditions used to vary in different parts of the country. The south, southeast, Ciscaucasia, the steppe region, and the Ural region always required additional labor from other sections of the country. On the other hand, the Central Agricultural and many Ukrainian provinces always had a surplus, and streams of farm laborers would pour out of these latter provinces every year to work elsewhere. In the regions outside the black-earth belt, in the industrial provinces, the men sought work in the factories and other industrial undertakings, leaving their farms to be attended to by the women, the young, and the aged. In those provinces outside the black-earth belt which had not yet lost their agricultural character the part played by male farm labor was naturally a little larger.

It is evident that the withdrawal of labor to the army was bound to affect most seriously those sections which depended so much upon outside labor—Ciscaucasia, the southeast, etc. With the departure

of the workers to the army, the rural districts naturally ceased to send their remaining workers to other parts of the country, so as to have their services available at home. The inevitable result was that certain regions which had depended upon outside labor were suddenly confronted with an exceedingly difficult situation.

The calling up of the reservists affected very seriously that class of farming establishments which was known in Russia as "privately owned,"<sup>4</sup> but left the peasant farms, comparatively, only slightly affected. For their own needs the peasants, upon the whole, still had sufficient labor available, even though not always at the height of the working season. The quality of the labor was also bound to deteriorate greatly, since women and old people were naturally less efficient than men in the prime of life. There was, moreover, deterioration in the cultivation of the soil; the crops could not be gathered promptly, and were in many instances left to rot in the fields; threshing was also delayed. We believe that threshing delays, often ascribed solely to the refusal of the peasants to sell their grain, were frequently attributable simply to the labor shortage. We may thus assert that the mobilization of labor for army service had a most detrimental effect upon "privately owned" farms, particularly in regions that had always employed outside hired labor. The peasant farms suffered relatively little, and this, too, only at a much later period.

Regarding the moment when the scarcity of farm labor became critical, we may say that no real shortage had apparently been felt in 1914. As a matter of fact, fewer provinces complained in that year of a scarcity of harvest hands than in 1913. All that the mobilization did was merely to cause temporary difficulties and some slight delays in harvesting. One particular factor tending to mitigate the effects of the first mobilizations in 1914 was the generally poor harvest, and in some of the provinces there was the additional compensation of the return of peasants who had lost employment in the cities, owing to the closing down of factories, the curtailment

<sup>4</sup> As distinct from peasant farms. This distinction had in pre-revolutionary Russia not only an economic but also a very complex juridical meaning. The status of the peasant was a peculiar one. Peasant land tenure was regulated by special laws, though the peasants could also hold land under the laws governing general land tenure. However from the economic point of view the terms "peasant" and "peasant farm," as used in Russian official sources, roughly correspond to those terms employed in western Europe.



of building operations, and other causes. It was only in those regions which were near the war zone, or such as happened to be particularly hard hit by the mobilization (for instance, the Cossack territories), that an acute shortage of labor made itself felt in 1914.

In 1915 the situation was somewhat different. A scarcity of labor became apparent precisely in those territories which depended upon outside labor, but it affected chiefly the larger establishments (in the provinces of Novorossisk, Samara, Saratov, Ufa, Orenburg, and Astrakhan, in Ciscaucasia, and a few other regions).

The year 1916 was a critical one, but the situation was by no means desperate.

The following table, prepared by M. Oganovsky, gives a fair idea of the increasing scarcity of labor during the period 1914-1916:

SHORTAGES OF LABOR IN 1914-1916

<i>Provinces having during the harvest:</i>	<i>1914</i>	<i>1916</i>
	<i>(percentage)</i>	
No labor shortage	24	..
Slight	14	..
Medium	18	52
Acute	17	45
No information	27	3
Total	100	100

We must also take into consideration the fact that female labor, employed in 1915 in 40 per cent of all the provinces, was already employed in 1916 in 70 per cent of them.

For 1917 we lack reliable figures, but so far as we may rely upon our own memory as regards the data that we had at our disposal at the Ministry of Food Supply, there was no serious aggravation during the first half of that year, while in the summer and autumn the farm labor problem even lost some of its acuteness, thanks to the extensive furloughs granted to soldiers and also to numerous desertions.

Far more serious was the effect of the labor shortage upon the industries engaged in the manufacture of food products. The problems facing the sugar and flour industries, in particular, were extremely serious. The flour manufacturers regarded the mobilization of workers as one of the fundamental causes of the disorganization in their industry, as appears from the following statement:

With the calling up of reservists from among the skilled workers and employees, which affected the technique of production, and with the loss of skilled workers such as grits millers, engineers, and others, most mills found themselves in a difficult position, and some were even compelled to shut down temporarily. The replacement of the mobilized skilled workers was a matter of great difficulty and could not always be accomplished. . . . Moreover, the scarcity of labor caused a heavy rise in wages, frequently up to 50 per cent. . . . The result of substituting inexperienced workmen was a reduction in output and a decline in quality, on the one hand, and damage to machinery and increase of accidents, on the other. On the whole, the engagement of new skilled workers and employees was attended with extreme difficulties.

Some undertakings, at the best, "substituted female for male labor," proceeded to train "boys, whose efficiency was, of course, comparatively low," and found themselves "compelled to work only one shift"; while, at the worst, they were forced to shut down their establishments temporarily.<sup>5</sup> As time went on and new classes were called to the colors, matters grew worse, and in 1916, at the request of the Central Flour Bureau, certain categories of skilled mill-hands were allowed exemptions from mobilization for stated periods.

If we now turn to the situation in the sugar industry, we find that the labor problem here assumed primary importance.

In 1915-1916 the labor problem gave rise to grave apprehensions. There was a shortage of labor not only in the planting, cultivation, transport, and storage of the sugar-beets, . . . but also in the extracting and refining operations at the refineries. There was a dearth of general laborers, as well as of skilled mechanics, engineers, machinists, and others. . . . With the approach of the refining season of 1916-1917 the labor problem became extremely acute. Owing to the shortage of labor and of transport facilities, the harvesting and delivery of beets to the factories suffered considerable delays, in spite of the abnormally raised wages. Thus, according to the data furnished by the Department of Special Revenues, 265,452,430 puds of beets had been delivered at the factories on October 21, 1916, out of an expected total of 308,702,150 puds, as against 462,679,950 puds delivered and

<sup>5</sup> See *Nuzhdi Mukomolnoi Promishlennosti* (*The Needs of the Flour Mills*), published by the Permanent Council of the Flour Millers' Congress, Petrograd, 1915, p. 17.

225,420,160 puds still outstanding on the same date in 1915. In 1914 the corresponding figures were 569,013,270 and 205,877,250 puds.<sup>6</sup>

The scarcity of labor in this industry appears clearly from the fact that for the summer and autumn months of 1916 permission was granted for the employment of more than 62,000 prisoners of war in the sugar factories. Actually, however, not more than 23,449 prisoners were allotted toward the beginning of December, 1916.

*Deterioration of Means of Production. Loss of Live Stock.*

Although scarcity of labor was the primary cause of the disorganization of production, it was by no means the sole cause. There was also deterioration of the means of production and the so-called disorganization of transport. The former was due partly to the very fact of the mobilization of an immense army, partly to the presence of such an army, and partly to war-time conditions generally. Thus, the calling up of men entailed the requisition of horses and oxen for transport, resulting in a depletion of the live stock needed for agricultural production. The necessity of keeping the army provided with munitions and equipment taxed all the resources of the industries engaged in supply work of this kind, with the result that the needs of agriculture in machinery, implements, metals, sacks, and other vital requirements had largely to be ignored. In short, the army interfered seriously with both the replacement and repair of plant, not to mention expansion of production. The same trouble affected flour mills and sugar refineries. Lastly, the peculiar conditions of the War, bringing in their train an almost complete isolation of Russia from the rest of the world, prevented the importation of necessary equipment from other countries. Even if this isolation had been less complete, it would still have been a question whether Russia could afford to indulge in the luxury of such imports in the face of dwindling exports, financial stringency, and the difficulties experienced by the Allies.

All these points will be discussed at length as we come to consider the effect of the scarcity of industrial products upon the market in foodstuffs. For the present, let us look only into the question of live stock depletion.

<sup>6</sup> See A. Isenberg, *Sakharnaya Promishlennost i Torgovlya (Sugar Industry and Sugar Trade)* in *Narodnoe Khozyaistvo v 1916 Godu*, V-VI, Petrograd, 1921, p. 57.



It is difficult to obtain complete data regarding the horses taken by the army, since none are available as regards those bought in the open market. Approximately, the number of horses taken from the civilian population was as follows: in 1914-1915, 1,310,300; in 1915-1916, 568,600; in 1916-1917, 220,400; total, 2,099,300. Adding the presumable purchases in the open market, this number will in all probability reach 2.5 or 3 millions. Theoretical calculation confirms this, since each million of mobilized troops requires approximately 200,000 horses. On the other hand, if we judge from the additional orders for grain fodder given by the Army Supply Department to the Ministry of Agriculture during 1916-1917 (about 190 million puds), together with the fodder acquired by the army directly in the war zone and the 90 million puds still available from previous supplies, we are forced to the conclusion that the army had about 3 million horses during the War. Besides these, we should also take into account the horses and oxen diverted from their regular work to carry army supplies, etc.

The ascertainment of the effects of the War upon the live stock would be easy enough if we were able to trace the changes in the numerical composition of the stock throughout the country. Unfortunately we are confronted here by a serious obstacle, for the pre-war statistics of the live stock of Russia are very inaccurate. Accordingly, when the Special Council on Food Supply took a national agricultural census in 1916, the result provided a very pleasant surprise: the census brought out the fact that there were in all the empire at that moment more cattle, horses included, than before the War. The increase in smaller cattle and swine appeared almost incredible. In the forty-seven provinces of European Russia for which the figures are available for the entire period, the number of horses underwent the following changes:

TABLE 28<sup>7</sup>  
CHANGES IN THE NUMBER OF HORSES

<i>Years</i>	<i>Four years old and above</i>	<i>Below four years</i>	<i>Total</i>
1913	16,582,931	4,308,405	20,891,336
1914	17,175,296	4,469,518	21,644,814
1915	15,958,694	4,253,997	20,212,691
1916	16,697,336	6,310,203	23,007,539

<sup>7</sup> See *Narodnoe Khozyaistvo v 1916 Godu*, issue VII, Petrograd, 1922, p. 61.

For 1914 and 1915 figures can be obtained for seventy-two provinces: in 1914 there were 33,874,905 horses (25,535,704 above four years old), and in 1915 there were 31,988,402 (23,867,854 above four years old). In the collection of data edited by M. Oganovsky we find the following figures for fifty-seven provinces:

TABLE 29<sup>8</sup>  
CHANGES IN THE NUMBER OF HORSES

<i>Regions and years</i>	<i>Working horses</i>	<i>Colts and fillies</i>	<i>Foals</i>	<i>Total</i>
<i>European Russia</i>				
1912	15,450,400	1,976,300	1,083,100	18,509,800
1916	16,134,400	2,148,600	2,009,000	20,292,000
1917	16,133,400	1,806,100	2,014,300	19,953,800
<i>Asiatic Russia</i>				
1912	6,306,800	1,120,000	712,300	8,139,100
1916	7,755,300	1,587,700	1,386,600	10,729,600
1917	6,592,000	1,094,700	1,212,600	8,899,300
<i>Total</i>				
1912	21,757,200	3,096,300	1,795,400	26,648,900
1916	23,889,700	3,736,300	3,395,600	31,021,800
1917	22,725,400	2,900,800	3,226,900	28,853,100

It is difficult to draw any serious conclusions from statistics such as these. Only one thing is certain, namely, that the increase in the stock of horses, which appeared so unexpectedly in 1916, had actually been taking place before the War, but had failed to attract attention. It is also certain that this increase must have been far larger than the figures show, for during the years of the War the stock of horses must unquestionably have been reduced.

Leaving aside the question of how far the absolute figures of the official statisticians previous to the census of 1916 may have been reliable, we think that these figures, maintaining the same degree of error year after year, would show at least the general tendency of the numerical change in the stock of horses. For this reason we find the figures that refer to the years 1914 and 1915 of greatest value, especially as they cover seventy-two provinces of the Empire. They show that in 1915 the total number of horses was reduced by 1,886,503. We should add here, however, that the whole loss accrues

<sup>8</sup> See *Selskoe Khozyaistvo Rossii v XX Veke* (*Russian Agriculture in the XX-th Century*), edited by Professor Oganovsky, Moscow, 1923, p. 218.

in fifty-four provinces of European Russia only. We regret that it is impossible to compare the data of the agricultural census of 1916 with those of the preceding years. They are important to us as showing that, after all, the live stock situation was not as grave as might have been expected. But the 1916 data may be compared with those of 1917, and our table shows that there were 2,168,700 fewer horses in the latter year. However, we must bear in mind the important fact that the census of 1917 was taken at a time of revolutionary upheaval, which may detract from its accuracy.

It should be stated, further, that a series of careful comparisons would seem to warrant the conclusion that the average age of the stock was reduced in the course of the War, and that the stock of horses on the large estates increased between 1912 (horse census) and 1916 at a slower rate than did the horses owned by the peasantry. It appears even that the number of working horses (above four years of age) on the large estates fell below that of 1912. But at bottom all this simply means that the quantitative loss of horses during the War fell more heavily upon large estates than upon the peasantry. But this, of course, should not be taken to mean that the loss of horses was felt less keenly by the peasants than by the large estates.

#### *Inadequacy of Transport Facilities.*

The effect of the so-called disorganization of transport upon the market in foodstuffs will be discussed later. Here we shall confine ourselves, incidentally, to a brief review of its consequences. During the War there was a disorganization of every kind of transport (rail, water, and horse), but only the railway difficulties were of first-rate importance. Agriculture suffered less from it than did the manufacturing and other industries, even though agriculture could not escape a certain amount of trouble caused by delays in the conveyance of seeds, binder-twine, and other necessities.

The industries in which the transport difficulties became a real calamity were those producing flour and sugar. Delays in the transport of grain, beets, and fuel were bound to upset the normal working of flour mills and sugar factories. Still, the failure to effect the timely delivery of raw materials to these was only half the trouble: the other half lay in the fact that it was impossible to dispatch the finished products of mills and refineries to the market. We



observe in consequence, throughout the period of the War, a condition of chaos in these two industries.

With these observations we shall conclude our review of the fundamental factors affecting the volume of production during the War. Naturally, we have not mentioned all the factors that tended to hamper normal production, for this does not fall within the scope of the present work. In the concluding part of this volume something will be said about certain measures taken by the authorities which inevitably led to disorganization in production (embargoes, unsuccessful price control, etc.). Here we are indicating only the principal natural causes, more or less beyond human control. Perhaps we ought to add that the factors referred to above may not have produced any positive result in those branches of production which depend on atmospheric and other conditions not easy to measure. Thus, for instance, it is possible that a reduced supply of labor in agriculture results merely in a relative curtailment of output; in other words, the absolute volume of production may sometimes even increase under such conditions (thanks to favorable weather, etc.), although not to the same extent as it might have increased had there been a plentiful supply of labor. Thus, the crop of 1915 was larger than that of 1914 in spite of the fact that the planted area was smaller; yet a portion of this crop may have been lost on account of delay in harvesting.

#### *Gross Cereal Harvests during the War.*

Referring the reader to the special volume dealing with the state of agriculture during the War, we shall here confine ourselves to a brief review of the figures showing the gross cereal harvests during this period. Taking into consideration the principal cereals only, Table 30 shows the movement of the harvests in fifty-seven provinces of European and Asiatic Russia. This table covers only those provinces for which data could be obtained for the entire period of the War, so that the effects of enemy occupation of territory and of accidental gaps in the statistics for one year or another upon the fluctuations of gross harvests are eliminated. The following are also excluded: the Polish provinces, Turkestan, Trans-Caucasia, the provinces of Kovno, Courland, Vilna, Grodno, Volhynia, Podolia, Yakutsk, and Kamchatka, Sakhalin, and the Kuban territory. In

reality, it is only the absence of the Kuban territory and of the provinces of Podolia and Volhynia that makes any serious differ-

TABLE 30  
TOTAL HARVESTS OF PRINCIPAL CEREALS IN FIFTY-SEVEN PROVINCES  
OF EUROPEAN AND ASIATIC RUSSIA

Years	(In thousands of puds)					Total of four principal cereals	Grand total
	Rye	Wheat	Oats	Barley	Buck- wheat	Millet	
1909-1913	1,139,349.9	1,016,474.8	787,680.7	493,099.9	58,811.0	137,649.0	3,633,065.3
1913	1,274,509.6	1,385,609.2	916,629.2	593,950.7	58,815.5	146,222.4	4,375,736.6
1914	1,140,635.5	1,073,971.0	705,296.1	437,928.7	43,652.6	107,159.7	3,508,643.6
1915	1,404,187.8	1,145,967.5	773,337.0	479,609.6	59,345.3	144,088.5	4,006,535.7
1916	1,170,851.9	809,941.1	746,057.0	417,907.5	64,546.3	109,201.9	3,318,505.7
1917	946,886.0	953,980.0	690,668.0	417,968.0	64,168.0	111,336.0	3,185,006.0
Percentage of average harvests in 1909-1913:							
1909-1913	100	100	100	100	100	100	100
1913	110.9	136.3	116.3	120.4	100.0	106.2	120.4
1914	100.1	105.7	89.5	88.8	74.2	77.8	96.5
1915	123.2	112.7	98.1	97.2	100.9	104.6	110.2
1916	102.7	79.6	94.7	84.7	109.7	79.3	91.3
1917	83.1	93.8	87.6	84.7	109.1	80.8	87.6

ence. In any case, however, our table accounts for all important agricultural sections of Russia. It brings out some interesting facts.

In the territories under investigation, there was gathered during the three years of the War (1917 is omitted for the reason stated previously) an average yearly harvest of the principal grains nearly equal to peace-time harvests. The year 1915, in particular, was an excellent one, yielding 10.2 per cent more than the pre-war average. In 1914, however, the harvest was somewhat smaller than usual. A serious reduction is to be observed only in 1916, when it amounted to 8.7 per cent.

When we study each kind of grain separately, we obtain a motley picture. Rye gives the best results. The harvests of this grain throughout the three years never sank below the usual average, and that of 1915 was especially good, being 23.2 per cent above average. It is only in 1917 that we find a sharp drop, but then, again, we must remember that the figures for this season are extremely uncertain. Wheat, after being quite satisfactory, or even good, during the first two years of the War, drops a great deal in 1916, but recovers in the following year. Oats stood all the time below the average, particularly in 1914. The same may be said of barley, which shows exceptionally poor yields in 1914 and 1916. Lastly, among the grits grains, we note that buckwheat stood better than millet. Deficient in 1914, buckwheat rose above the average in the following two years, especially in 1916. Millet fell far below the average in 1914 and 1916.

On the whole we may say that there is nothing very alarming revealed by these figures. If we remember that the organization engaged in collecting the harvest figures regarded the 1916 figures as manifestly too low, we shall feel convinced that the Russian Empire unquestionably had an adequate supply of cereals throughout the period of the War.

In an attempt to find some confirmation of this view, we have compared, for forty-two provinces where this was found feasible, the statistics of the Special Council relating to the harvest of 1916 (these are the figures used in the preceding table) with those of the Central Statistical Committee for the same year.<sup>9</sup> The result of the comparison is as follows: for the breadstuffs (rye and wheat), the Central Statistical Committee recorded the harvest at 212 million

<sup>9</sup> See *Selskoe Khozyaistvo Rossii v XX Veke*, pp. 159-178.



puds more than did the Special Council; for the fodder grains (oats (oats and barley) at 118 million puds more; for the mixed cereals (buckwheat and millet) at 31 million puds more. For all six kinds of grains, therefore, the Central Statistical Committee recorded a harvest of 361 million puds, or about 12 per cent in excess of the figure recorded by the Special Council.

We now have to study the grain harvests of the empire for as much of the territory as was included in it each year, that is, allowing for enemy occupations. Such a study was made by M. Kondratev and has been embodied in Table 31. We deem it necessary, however, to make some important corrections in this Table. While his figures for 1914 and 1915 do not strike us as open to objection, those for 1916 are clearly too low; at least, in the case of rye, wheat, oats, barley, millet, and buckwheat. He reckons the total harvest of these cereals at 3,794,567,900 puds when even the most cautious computation makes it not less than 4,000 million puds.

We refrain from discussing the harvest of 1917, both because it is of no particular importance to us here and because no data are available for checking the accuracy of such material as we possess concerning this year.

Little importance is also to be attached to the harvest of such cereals as bearded wheat, peas, and maize, as they occupy a minor position in the Russian foodstuffs market. In regard to potatoes we note the fact that the enormous decrease in the 1915 crop is to be explained in a considerable degree by the enemy invasion of the Polish and other potato-growing provinces, as well as by the fact that military operations in one way or another prevented a full crop, even where no invasion took place. The importance of these regions in the potato harvest of the empire appears clearly from the fact that out of a total area of 4.2 million deciatines of potatoes in 1909-1913, the share of the Polish and northwestern provinces (Kovno, Vilna, Grodno, Vitebsk, Mogilev, and Minsk) was nearly 1.7 million deciatines, or about 40 per cent.<sup>10</sup> On the other hand, the prohibition of liquor distillation also had its effect upon the area planted with potatoes. Hence there is no reason to be sur-

<sup>10</sup> See *Veroyatni Sbor Khlebov v 1914 Godu* (*The Probable Yield of Crops in 1914*), published by the Central Statistical Committee, Petrograd, 1914, pp. 10-13.

prised that the yield of potatoes was nearly 30 per cent less in 1915 than before the War. In any case the decline does not imply that the inhabitants of the interior provinces were less well supplied with potatoes in 1915 than previously. In 1916, it is true, the situation was worse, but here again we must remember that our estimates

TABLE 31  
TOTAL HARVESTS OF CEREALS AND POTATOES IN RUSSIA MAKING ALLOWANCE FOR THE TERRITORIES OCCUPIED BY THE ENEMY

Year	Food cereals 1.	Fodder grains 2.	Mixed cereals (grits) 3.	Total 1, 2, 3 (In thousands of puds)	Less important cereals 4.	Potatoes 5.	Grand total: 1-5
1909-1913	2,783,712.8	1,635,402.8	232,275.6	4,651,391.2	218,521.9	2,139,418.5	7,009,331.6
1914	2,788,184.2	1,489,872.4	183,680.0	4,461,736.6	207,278.3	2,242,575.4	6,911,590.3
1915	2,935,393.8	1,455,250.9	228,930.9	4,619,575.6	190,547.8	1,526,824.6	6,336,948.0
1916	2,281,728.8	1,316,687.4	196,151.7	3,794,567.9	172,146.8	1,131,143.1	5,097,857.8
1917	2,167,128.0	1,247,308.0	199,013.0	3,613,449.0	188,180.0	1,229,655.0	5,031,284.0
<i>Percentage of total harvests in 1909-1913:</i>							
1909-1913	100	100	100	100	100	100	100
1914	100.0	91.1	78.2	95.9	95.0	104.8	98.6
1915	105.6	89.0	98.7	99.3	87.1	71.3	90.4
1916	82.0	80.5	80.2	81.5	78.9	52.9	72.7
1917	77.9	76.3	85.7	77.6	86.2	57.5	71.8

of the cultivated area were too low. All that we can be sure of is that the potato harvest of 1916 fell below the average.

*Condition of Milling Industry.*

To what extent were the facilities for milling grain reduced during the War? We have already quoted information furnished by the Congresses of Flour Millers illustrating the troubles of this industry during the summer of 1915, as a result of the labor shortage. But there was also another factor hampering the milling industry—the disorganization of transport.

The main difficulty of the milling industry at the present time (middle of 1915) is the lack of sufficient rolling-stock at the disposal of the flour-mills and the consequent impossibility of marketing the finished article, a shortage of fuel, and a chronic shortage in the supply of grain.<sup>11</sup>

No statistics on the milling industry were available in Russia. For the first half of 1916, an attempt was made by M. Demosthenov, in a report to the Special Council on Food Supply, to ascertain the extent to which the production of flour had been curtailed. This report was based upon data obtained by telegraphic inquiries sent out to the nineteen provinces in which the milling industry was most developed (March–April, 1916) and which possessed 1,453 commercial mills of the first five classes, that is, those buying their grain. The investigation extended to 700, or 47 per cent, of these mills. It appeared that 382 mills were operating normally, 6 had increased production, 206 had reduced it, and 106 had closed down. In other words, it was found that 85 per cent of all the mills under investigation were at work; but if we eliminate those mills which were working exclusively for the needs of the army, there remain 81 per cent working for the population at large. By comparing the output of these mills at this time with their normal output, it was possible to ascertain approximately the reduction in the output of the commercial mills, viz.: 28 per cent; if we exclude the army mills, the reduction was 33 per cent. The worst sufferers were the provinces of Kharkov, Ekaterinoslav, Kiev, Poltava, Taurida, and Saratov.

<sup>11</sup> See *Nuzhdi Mukomolnoi Promishlennosti* (*The Needs of the Flour Mills*), 1915, p. 14.



This result, however, must not be considered very accurate, for millers were wont to exaggerate deliberately their normal output, so as to lend plausibility to their increasing demands for rolling-stock to convey grain and fuel. It is safe to say, therefore, that the difference between the normal and actual output was hardly greater than 20 per cent for all mills, and 25 per cent for all save those working for the army.

In the latter part of 1916 a flour census was taken throughout the empire, and it might have supplied exhaustive data regarding the operations of the mills during the period 1913-1916, had it not been that the Bolshevik Revolution made it impossible to publish the practically completed statistics. Still, we have at our disposal some material illustrating the condition of the milling industry at the close of 1916, thanks to the fact that the Central Flour Bureau was at that time publishing the monthly reports received from the commissioners of the Special Council on Food Supply (after the month of October), concerning the state of the milling industry in the provinces under their jurisdiction (forty-two provinces with a total of 2,460 mills of the first five classes). For December, reports were received from twenty-seven provinces with 938 commercial mills, or 59 per cent of the total in these provinces, showing that their actual output was 43 per cent of their normal monthly output for wheat and 22 per cent for rye. By separate territories, the ratio between actual and normal output was: Volga region, 38 per cent for wheat and 62 per cent for rye; Ural region, 63 and 42; southwestern region, 43 and 32; Black Sea region, 46 per cent for wheat.

But we must say here, again, that the actual state of affairs was probably somewhat better than is shown by these figures, the more so as the grain supplies at the mills toward the close of December amounted to 40 per cent of their normal output, although we have to admit that these stocks were not evenly distributed. In some cases the millers deliberately obstructed operations (to combat official price regulation). Thus, in the province of Nizhni-Novgorod, the mills had on hand on December 1, 1916, stores of wheat aggregating 919,000 puds; they received in the course of the same month additional wheat amounting to 730,000 puds; but the total flour output for that month was only 80,000 puds, and this when they were adequately supplied with labor and fuel.

The fundamental cause of the reduced output of the milling in-

dustry, especially in the latter half of 1916, was the shortage of grain. The factor second in importance was the scarcity of fuel.

The producing capacity of the Russian flour mills was enormous, even after three years of war and all the wear and tear of machinery. Even in peace-time the Russian flour mills never worked to their full capacity. In reply to inquiries made in the course of the War, the millers would often report to the authorities the maximum capacity of their plants as the normal output which those inquiries were designed to ascertain. The result was an exaggerated idea of the seriousness of the crisis in the industry. This appears when we glance at the figures of the quantities of flour transported by rail during the War:

#### CONVEYANCE OF FLOUR BY RAIL<sup>12</sup>

	1913	1914 (in millions of puds)	1915	1916
Wheat flour	206.9	217.2	218.8	225.3
Rye flour	77.3	77.4	88.2	93.2

It thus appears clearly that the root of the trouble was not in a smaller production of flour, but in the inability of the mills to work to their full capacity, so as to satisfy the heavier demand for flour. We shall revert to this matter later on.

#### *Changes in Live Stock.*

Data concerning numerical changes in live stock during the War are, unfortunately, conflicting. Previous to the War the reports on the movement of live stock used to be compiled by the Veterinary Department. In 1916 the all-Russian agricultural census was taken, overthrowing all accepted ideas as to the actual supply of live stock in the empire by revealing a large excess over the previous estimates. When a scarcity in the meat supply began to be felt, in 1916, the Special Council, reckoning with the old estimates, arrived at very pessimistic conclusions:

At this rate of slaughter, the total number of cattle, estimated in 1913 at 40 million for European Russia and the Caucasus, must have dropped by October 1, 1915, to 31 million head, and after that the

<sup>12</sup> See *Narodnoe Khozyaistvo v 1916 Godu*, issue VII, p. 288.

extensive killing of cattle for meat went on not only at the expense of the natural increase, amounting to 7 million head, but also at the expense of the adult stock, that is, the fundamental resources of the live stock industry.<sup>13</sup>

When the preliminary returns of the census came in, however, a comparison of these data with the corresponding data of the Veterinary Department for 1914 (for thirty-six provinces in European Russia) showed the following state of affairs:

For all kinds of animals, even horses, of which a large number went to the army, the census gives far larger figures than those supplied by the Veterinary Department for 1914, up to the outbreak of the War. The largest excess is shown for goats (82.3 per cent), sheep (54.2 per cent), and swine (44.2 per cent); then follow horned cattle (30 per cent) and horses (10.5 per cent). . . . This, no doubt, does not signify that there was a numerical increase in live stock in the course of the War . . . but it shows that the notion of an absolute inadequacy of cattle in Russia to provide for the needs of the army and the civilian population was based upon far too low estimates, and was therefore in need of revision.<sup>14</sup>

If we consider only those European provinces of Russia for which data are available throughout the war period, we observe the following situation in the numerical movement of live stock.

TABLE 32<sup>15</sup>

NUMBER OF CATTLE IN FORTY-SEVEN PROVINCES  
OF EUROPEAN RUSSIA

(Exclusive of Ciscaucasia and the provinces of Courland, Kovno, Grodno, and Kholm.)

Year	Large horned cattle		Sheep and goats		Swine	
	Number	Percentage of 1913	Number	Percentage of 1913	Number	Percentage of 1913
1913	30,377,191	100	35,070,151	100	10,314,393	100
1914	30,878,087	101.6	35,877,188	102.3	10,779,624	104.5
1915	28,879,004	95.0	35,068,111	99.9	10,760,009	104.3
1916	37,562,954	123.6	61,508,783	175.3	16,299,508	158.0

<sup>13</sup> See *Izvestia Osobago Soveshchanya po Prodovolstvennomu Delu*, No. 22, April 1, 1916, p. 15.

<sup>14</sup> *Ibid.*, No. 27, September 1, 1916, p. 99.

<sup>15</sup> See *Narodnoe Khozyaistvo v 1916 Godu*, issue VII, p. 61.



It will thus be seen that the figures for 1916 are entirely out of harmony with those for the preceding years. It is also plain that the results of the census of 1916 must force us to view with much skepticism all the old notions of meat production and consumption in Russia. We should remember, furthermore, the important fact that this census was taken in time of war, when the inquiries were often answered by women and when the population had a tendency to refuse truthful statements regarding their wealth. For these reasons it is very likely that the live stock was even larger than that shown by the census.

To gauge even roughly the losses in live stock during the War, we shall have to apply a very crude and imperfect method, based upon the idea that, no matter how erroneous the official estimates had been up to 1916, so far as absolute numbers are concerned, they still help to indicate the extent and general trend of the changes that took place in the live stock of the country. It also seems to us that comparison of the census figures of 1916 and 1917 should furnish some clue to the reduction in live stock from 1916 to 1917. For 1913, 1914, and 1915 we have the figures of the Veterinary Department for practically the whole empire (Poland excepted).

TABLE 33

NUMBER OF CATTLE IN SEVENTY-TWO PROVINCES OF  
EUROPEAN AND ASIATIC RUSSIA

<i>Year</i>	<i>Large horned cattle</i>		<i>Sheep and goats</i>		<i>Swine</i>	
	<i>Number</i>	<i>Per- centage of 1913</i>	<i>Number</i>	<i>Per- centage of 1913</i>	<i>Number</i>	<i>Per- centage of 1913</i>
1913	49,298,717	100	73,253,169	100	13,753,457	100
1914	50,037,497	101.5	71,708,507	97.8	14,542,569	105.7
1915	47,657,631	96.6	74,847,028	102.1	14,543,885	105.7
Difference be- tween 1914 and 1915	— 2,379,866		+ 3,138,521		+ 1,316	

Let us now see how the number of cattle changed in 1917, as compared with 1916, according to the agricultural census figures. Unfortunately we have data available for only fifty-seven provinces of European and Asiatic Russia.

TABLE 34<sup>16</sup>

NUMBER OF CATTLE IN FIFTY-SEVEN PROVINCES OF  
EUROPEAN AND ASIATIC RUSSIA

Year	Large horned cattle		Sheep and goats		Swine	
	Number	Per- centage of 1916	Number	Per- centage of 1916	Number	Per- centage of 1916
1916	50,206,900	100	82,815,500	100	18,568,300	100
1917	48,195,300	95.9	78,133,900	94.3	20,679,000	111.3
Difference be- tween 1916 and 1917	— 2,011,600		— 4,681,600		+ 2,110,700	

As we see, in fifty-seven provinces,<sup>17</sup> the stock of large cattle decreased by over 2 million head, and this in spite of the fact that our calculations for 1917 in many stock-raising areas, in the absence of data for that year are based on the 1916 figures, on the assumption that there were no changes in the stock in these areas during that year. We therefore believe that the total decrease in the stock of large horned cattle between 1916 and 1917 must have been at least 2.5 million head.

Accordingly we obtain the following figures for the loss of large horned cattle during the entire period of the War: 1914–1915, 2.4 million head; 1916–1917, 2.5 million; for 1915–1916 we may also safely take the figure 2.5 million; and this will give us for the entire period 7.5 to 8 million head. The truth lies probably somewhere between 8 and 10 million.

When we consider that the “increase” of live stock observed in 1916 undoubtedly existed already in 1914, and that by 1916 about 5 million animals of the original stock had been killed off, we shall have to estimate the total of large cattle in 1914 considerably higher than 60 million head and we shall scarcely be able to reckon the decrease in live stock by 1917 at more than 15 per cent. In any case, the theory of the Special Council, according to which the decrease in live stock by October, 1915, was already 30 per cent for

<sup>16</sup> The data of the 1917 census were published and compared with those of 1916 in the volume *Selshoe Khozyaistvo v Rossii v XX Veke*, pp. 240–247, 260–263.

<sup>17</sup> Exclusive of Turkestan, Trans-Caucasia, Kamchatka, Sakhalin, and the provinces of Bessarabia, Esthonia, Livonia, Trans-Baikalia, Amur, and Maritime.

European Russia and 20 per cent for the empire as a whole, now seems absolutely unwarranted.<sup>18</sup>

We also believe there must have been throughout the country in 1914 about 21 million swine and from 100 to 110 million sheep and goats. While this is, of course, only a rough estimate, it will hardly be found far from the true figures. Our tables show, furthermore, that the position was apparently quite favorable throughout the period of the War in so far as the number of swine was concerned. Sheep-raising, however, suffered some setbacks in 1914 and 1916. The cause is in all probability the failure of the fodder crops in these two years (in 1916 the stock of sheep shrank materially along the Volga, in the Urals, and in Orenburg province, the very regions that suffered from the failure of feed crops); furthermore, the use of small cattle for the army, beginning in 1916, contributed to this result.

#### *Meat Production.*

Meat production in Russia fell far short of the standard it ought to have reached with so abundant a supply of live stock. Thus we read that "meat production is poorly developed in our live stock industry; we keep the cattle chiefly for the sake of milk and manure and, in the southern provinces, for work. For meat we usually take cattle that cannot be used otherwise."<sup>19</sup> In another document we read:

In Russia, preëminently a rural country, meat was very little used as food, being something in the nature of a holiday repast. Lack of meat-preserving arrangements in the home, the absence of butchers' shops in the villages, remoteness from the larger centers of population, but chiefly the relative expensiveness of meat, were in a considerable measure responsible for the fact that the peasantry used so little meat in their diet. Moreover, conditions of agriculture in Russia were such as to tend to make draught cattle and the production of manure, and more recently dairy cattle, the chief objects of the stock-raising business.<sup>20</sup>

According to the data of the Veterinary Department, the num-

<sup>18</sup> See *Obzor Deyatelnosti Osobago Soveshchanya*, pp. 92-93.

<sup>19</sup> See *Trudy Kommissii po Izuchenyu Sovremennoi Dorogovizny*, issue II, p. 6.

<sup>20</sup> See *Obzor Deyatelnosti Osobago Soveshchanya*, pp. 91-92.



bers killed for meat throughout the country in 1913 were: large horned cattle, 6.62 million head; sheep 7.06 million; swine, 2.27 million. This would make a very negligible portion of the total stock, even if we accept the old estimates. The total consumption (considered as equal to production) was calculated by the Veterinary Department in 1913 as 121.5 million puds of all kinds of meat, which gives a rate of 0.7 puds per capita of the population a year (city 4.3 puds, country 0.3).<sup>21</sup>

We are inclined to regard the figures of the Veterinary Department as too low. This undoubtedly holds true as regards the slaughter of sheep and swine. In our opinion, the production of all kinds of meat in Russia in 1914 must have amounted to 160–170 million puds.

Whatever one may think of the volume of meat production in Russia, there remains the certainty that a relatively negligible amount of meat and cattle went to the market. Let us take, for example, the transport figures for meat and cattle in 1913.<sup>22</sup> We find that there were consigned: 1,494,000 head of large horned cattle, 538,000 sheep, 1,405,000 swine; meat of domestic animals other than swine, in various forms, was transported to the amount of 9,602,000 puds, and pork and bacon, 3,552,000 puds. Converting the meat into terms of live stock, on the basis of 12 puds to a head of beef,<sup>23</sup> and 8 puds to a pig, we find that there were transported, all told: 2,205,000 head of large horned cattle, 1,849,000 pigs, and 538,000 sheep. (We have admitted here an insignificant error in reckoning all the meat of domestic animals in terms of beef, when a very slight share belongs also to mutton.) It is true, the cattle carried by rail does not exhaust the number of cattle sent to market, since some are driven to market; but we think we are safe in calculating the number of all marketed cattle (at all events of those sold in the more important markets) as follows: large horned cattle, about 3 million head; swine, about 4 million; sheep, 1.5 to 2 million (the latter figure seems less probable). The remainder of the slaughtered cattle was used by the rural inhabitants themselves (3

<sup>21</sup> *Ibid.*, p. 91.

<sup>22</sup> See *Narodnoe Khozyaistvo v 1916 Godu*, issue VII, pp. 285, 288.

<sup>23</sup> The average weight of a Russian steer was 10 puds, while that of a Steppe steer was 14 puds.

to 3.5 million head of large cattle, 4 million swine, 15 to 18 million sheep), or sold at small, local bazaars.

These facts alone, which, upon the whole, are not far from the actual conditions as confirmed from various sources, prove the considerable difficulties that had to be met in order to provide sufficient meat for the Russian army. While it is unquestionably a fact that during the War there were at work certain factors that tended to increase the offering of meat in the market (for instance, crop failures in fodder during 1914, in Siberia in 1915, and in south-eastern Russia in 1916), there were, on the other hand, as we have seen, many obstacles in the way of a successful supply of the meat required during the War.

#### *Fish.*

As to the extent to which fish could be made to take the place of meat, the Department of Agriculture submitted to the Special Council a report in which it stated, among other things that:

Although Russia holds today the second place in the world in respect to the magnitude of the fishing industry, producing annually not less than 70 million puds of fish and fish products, the fact remains that even under normal conditions the country has always been far from able to satisfy the demands of the domestic market. Our enormous catches were even under the most favorable circumstances capable of satisfying only three-fourths of the domestic demand for fish and fish products, while the balance had to be covered by imports from abroad. . . . Four-fifths of the foreign imports were made up of articles of prime necessity, mainly herrings, which have always been used and are therefore needed also at the present time by the mass of our population, and perhaps more so by the poorest classes.<sup>24</sup>

It will thus be seen that there was little prospect of substituting fish for meat, especially when we consider that the imports of foreign herrings came to an almost complete standstill during the War.

#### *Butter.*

No statistics of butter production existed in Russia. We are therefore compelled to compute the volume of production for this commodity from indirect data, namely, the quantities of butter received for dispatch by the railways.

<sup>24</sup> See *Izvestia Osobago Soveshchanya*, No. 21, p. 9.

Toward the end of 1915 M. Demosthenov worked out in great detail the available data on the transport of butter by rail in 1913.<sup>25</sup> We will give here the gist of his conclusions concerning the production and consumption of butter in Russia.

The total amount of butter consigned by rail in 1913 throughout the empire was 9,125,300 puds, of which 3,118,400 puds came from European Russia, the Caucasus, and central Asia, and 6,006,900 from Siberia. Exports to foreign markets absorbed 4,763,000 puds. Consequently, the domestic consumption of Russia of marketed butter was 4,362,300 puds.

Of the total volume of butter sent by rail in Siberia, about 500,000 remained within Siberia, while nearly 5.5 million puds went to European Russia (about one million) and to the foreign markets (about 4.5 million puds).

Of the butter produced in European Russia, about 263,000 puds were exported abroad and about 2,855,000 remained for domestic use. In addition to this, as we have learned, there were brought in from Siberia about one million puds, bringing the total consumption of butter in European Russia up to 3,855,000 puds.

Although these summarized figures are sufficient to show the part played by Siberia in the production of butter, as well as the fact that European Russia was a large consumption market for this article of food, they do not show precisely what part of European Russia was the center of the butter industry. Upon closer examination of the statistics of consignments of butter from and to the different provinces of the Empire, we shall find the following regions in European Russia showing an excess of quantities consigned over quantities received:

<sup>25</sup> See *Dannya o Snabzhenii Korovim Maslom Evropeiskoi Rossii* (Data on the Supply of Butter to European Russia), Petrograd, 1915; also *Obzor Deyatelnosti Osobago Soveshchanya*, Petrograd, 1916.



## REGIONS OF EUROPEAN RUSSIA EXPORTING BUTTER

<i>Region</i>	<i>Excess of quantities consigned over quantities received (in puds)</i>
Northern (Provinces of Vologda, Novgorod, Yaroslav, Tver, Vyatka, Kostroma, Archangel)	1,137,700
Northwestern (Provinces of Courland, Livonia, Esthonia, Kovno, Vitebsk, Mogilev, Grodno, Minsk)	301,700
Southwestern (Province of Volhynia)	95,200
Volga (Provinces of Ufa, Nizhni-Novgorod, Simbirsk, Orenburg, Urals)	113,500
Central (Provinces of Smolensk, Tambov, Ryazan, Kaluga, Orel, Penza, Chernigov, and others)	75,700
Total	1,723,800

These surpluses proved insufficient for all needs, and European Russia was forced to bring in one million puds of butter every year from Siberia, of which 300,000 puds took the place of the butter exported abroad from the northern region, while 700,000 constituted the net addition to the total consumption in European Russia.<sup>26</sup>

In considering now the effects of the War upon the production of butter, we shall discuss only the following four regions: Siberian, northern, northwestern, and southwestern. The two latter, being situated close to the war zone, suffered the most. In view of the fact that butter production is carried on chiefly during the spring and summer, we may assume that, in so far as the failure of fodder crops did not interfere, the regions near the war zone in 1914 succeeded in producing nearly their normal amount of butter. But after 1916 these two regions should be considered as simply nonexistent for the purpose of butter production.

We have at our disposal the statistics of butter consignments during the War on the Moscow-Yaroslav-Archangel Railway and the Petrograd-Vologda-Vyatka Railway, that is, for an area smaller than the territory included in the northern region. The figures are as follows: 1913, 923,300 puds; 1914, 868,100 puds; 1916, 801,700 puds. In 1915 the situation was more complicated, for, while the total consignments were 1,357,500 puds, they included reconsign-

<sup>26</sup> Practically the entire import of Siberian butter was absorbed by eight large cities (Petrograd, Moscow, Kiev, Odessa, Kharkov, Tiflis, Rostov-on-Don, and Baku).

ments of Siberian butter to Archangel, for export to England (306,800 puds), as well as to other railway lines than those mentioned above, to supply the interior of the country (about 120,000 puds, as this is the amount by which the 1915 butter consignments to other points exceed those of previous years). We may then estimate the butter consignments in 1915 at about 931,000 puds, that is, normal.<sup>27</sup>

We thus get the following results for European Russia. In 1914, there was an underproduction of butter in the northern region amounting to perhaps 100,000 puds, if we take the area as a whole; a similar deficit was probably observed in the regions near the war zone. In 1915, there was a nearly normal output in the northern region, with a considerable decline in commercial butter production in the northwestern and southwestern regions, the deficit amounting in all probability to 200,000–250,000 puds. In 1916, we have a curtailment of output in the northern area approximating 175,000 puds for the entire territory, and a loss of 400,000 puds in the regions near the war zone. We therefore believe that not more than the following quantities of butter could have found their way to market in European Russia: 1914, 2,920,000 puds; 1915, 2,720,000 puds; 1916, 2,545,000 puds.

We may now turn to examine the butter situation in Siberia. To the Siberian butter industry a very heavy blow was delivered at the very beginning of the War by the cessation of foreign exports and the disorganization (or, rather, stoppage) of transport, with the result that immense quantities of butter, accumulated in Siberia, forced prices down precipitately. A contributing factor in the situation was also the utter paralysis of credits, as well as the scarcity of skilled workers. Soon, however, the State Bank came to the rescue of the industry in Siberia, and with the large purchasing operations for the army and the domestic market and an improvement in the transport situation, the crisis was, up to a certain point, overcome, particularly so when there was heavy requisitioning of butter for the army, in October.

In the early part of 1915 a conference of butter producers seemed to consider the further prospects of the industry hopeful, believing that they would be able to maintain the 1915 output as high as that

<sup>27</sup> See *Narodnoe Khozyaistvo v 1916 Godu*, issue V–VI, p. 80; also V. Monin, *Maslo i Margarín (Butter and Margarine)*, Berlin, 1923, p. 17.

of 1914, notwithstanding all the difficulties caused by the War. The conference felt even that "should the War Department require one-third of the total production, there will still be left over for export about 3.5 million puds,"<sup>28</sup> that is, they assumed that the total output would be not less than 6 million puds. But, as we have seen, there was a crop failure in Siberia in 1915, and it is scarcely possible that the butter production should have been normal in that year.<sup>29</sup>

In 1916 a very complicated situation affected butter production in Siberia. In addition to the general troubles, such as labor shortage, reduction of live stock, etc., new difficulties appeared in the form of price regulation (an utter failure, incidentally), and embargoes on the shipment of butter. We shall not dwell here upon all these troubles, but merely state that, according to an approximate calculation, the Siberian butter output of 1916 dropped 30 to 40 per cent below the pre-war volume.<sup>30</sup>

The cattle in many areas, especially in the Barnaul district, suffered heavily from lack of fodder; much live stock was sold for slaughter or perished; and many creameries had to shut down for lack of milk. There was a wholesale shutting down of butter factories towards the autumn of 1916. Nor was the labor scarcity, mainly in foremen and skilled workers, without its effect upon the industry, apart from the high cost and scarcity of various articles needed in butter production.<sup>31</sup>

We shall now attempt here to calculate the production of Siberian butter during the War. We are inclined to think that the total output for 1914 was about 5,700,000 puds, since the crisis set in at a season when butter-making is at its lowest ebb. It may even be that we are exaggerating the deficit and that the 1914 total did not drop below that of 1913, thanks to the favorable market conditions during the few months preceding the War.

For 1915 we may assume the production to have amounted to 5.5 million puds; for 1916, if we allow for a reduction of about 30

<sup>28</sup> See *Trudy Kommissii po Izuchenyu Sovremennoi Dorogovizni*, issue II, p. 102.

<sup>29</sup> According to computations made in 1915, the deficit was between 300,000 and 500,000 puds; see *Dannya o Snabzhenii Korovim Maslom Evropeiskoi Rossii*, p. 8.

<sup>30</sup> See *Narodnoe Khozyaistvo v 1916 Godu*, issue V-VI, pp. 28, 81.

<sup>31</sup> *Ibid.*, p. 81.



per cent below pre-war output, it must have been in the neighborhood of 4.2 million puds.

For the empire as a whole, therefore, the output of butter or, more properly speaking, the amount of butter that could have reached the market, would be approximately as follows: 1913, 9,125,300 puds; 1914, 8,620,000; 1915, 8,320,000; 1916, 6,750,000. In other words, in 1917 butter production was probably about 26 per cent lower than before the War. This computation, no doubt, is only approximate. But it is confirmed by the figures on rail transport for 1914 and 1915 (for 1916 we are unable to obtain reliable data). In 1914, all the railways of the empire transported 8,339,000 puds of butter, and in 1915, 8,628,000 puds.<sup>32</sup> This agrees roughly with our calculations, and we may now conclude our discussion of the butter question.

*Sugar Production.*

Accounts of the sugar production of the Russian Empire were always properly kept, so that we have no difficulty in obtaining a view of the industry during the War. Table 35 offers all the data required to enable the reader to study the subject carefully, showing as it does the production of sugar throughout the empire from 1914 to 1917.

TABLE 35<sup>33</sup>

PRODUCTION AND STOCKS OF SUGAR IN THE EMPIRE

	1914-1915	1915-1916 (in puds)	1916-1917
In stock at beginning of the periods:			
(a) at refineries	16,936,961	20,456,315	7,603,145
(b) at stores and warehouses	3,620,615	4,899,050	1,177,915
Total	20,557,576	25,355,365	8,781,060
Sugar produced from beets:			
(a) granulated	47,584,454	38,229,485	84,145,361
(b) lump	59,426,732	54,067,271	
Total	107,011,186	92,296,756	84,145,361
Grand total	127,568,762	117,652,121	92,926,421

<sup>32</sup> See *Ibid.*, issue VII, p. 287.

<sup>33</sup> See *ibid.*, issue V-VI, p. 41.

This table reveals a steady decline in production, due not only to the quantity and quality of the beet harvests, but also to certain specific conditions of war-time. In the first place, many refineries were destroyed or occupied by the enemy, being in the neighborhood of the front (the Russian sugar factories are located chiefly in the southwestern section of the country), while others had to shut down on account of the scarcity of labor and lack of fuel and other requisites. In the second place, there was a reduction in the area planted with sugar beet, likewise a consequence of the labor shortage. This also explains the difficulties in harvesting the beet crop. Table 36 affords an idea of the number of refineries at work and of the area of beet cultivation:

TABLE 36  
NUMBER OF SUGAR REFINERIES AND AREA UNDER BEET

	1913	1914	1915	1916
1. Number of refineries	309	314	268	258
2. Area of sugar-beet plantations:		<i>(in deciatines)</i> <sup>34</sup>		
owned by refineries	215,885	222,482	258,851	272,318
owned by planters	486,567	446,265	430,647	398,059
Total	702,452	668,747	689,498	670,377

It is interesting to note that the refineries increased their area of cultivation in order to become independent of the planters. The area cultivated by the latter, on the contrary, shrank more rapidly than that of the refiners extended, and the same process was observed also in 1917, when the area cultivated by the refiners increased to 310,000 deciatines and that cultivated by planters shrank to 280,000 deciatines. The volume of planting is estimated variously by different authorities but this question is of no particular importance to us.

If we bear in mind that the Russian sugar production was 93 million puds in 1913-1914, 75.4 million in 1912-1913, and 112.8 million in 1911-1912, we must concede that the amount of sugar produced in Russia in the course of the War was entirely normal (during 1911-1913 the average annual production had been 93.7 million puds, while during the War it was 94.4 million). The result will be a little less favorable if we take the aggregate amount of

<sup>34</sup> One deciatine = 2.7 acres.

sugar available in the course of the three War years (the average annual stocks available were several million puds smaller than during the three last years before the War).

### *Salt.*

The production of salt seems to have presented no problem at all during the War. All efforts were devoted exclusively to the efficient organization of transport and distribution. If we consider the figures of salt production in the south (Crimea and Donets basin), where about 50 per cent of the total salt supply of Russia is obtained, we have the following situation: In 1913 there was produced 59 million puds; in 1914, 55 million; in 1915, 54 million; in 1916, 52 million; and in 1917, 43 million puds.<sup>35</sup> In the Ural and Astrakhan areas, yielding about 20 and 30 million puds a year respectively, no appreciable reduction of output could be observed till the middle of 1916. The condition of the salt industry, therefore, seems satisfactory, at least as late as 1917. This conclusion appears to be fully confirmed by the results of the census of marketable supplies of foodstuffs carried out under the auspices of the Special Council during December, 1915, and January, 1916. As marketable or "commercial" stocks were considered "those stocks of goods which were in the hands of the dealers engaged in disposing of the producers' goods to the consumers." It was found that such "commercial" stocks of salt in European Russia, exclusive of the provinces of Nizhni-Novgorod, Kherson, Ekaterinoslav, and Orel, amounted to 40,800,000 puds,<sup>36</sup> that is, about half the annual requirement of European Russia.

### *Conclusion.*

All available data show a positive reduction in productive work during the War. There was a reduction in the output of cereals, butter, and in the size of live stock; the milling and sugar industries were similarly affected. But it also appears that these reduced activities were very far from reaching the low level that they may seem to have reached, judging by incomplete and unreliable statistics,

<sup>35</sup> A. A. Sukhov, *Ekonomicheskaya Geografiya Ukraini (Economic Geography of Ukraine)*, Odessa, 1923, p. 133.

<sup>36</sup> See *Izvestia Osobago Soveshchanya*, No. 21, p. 59.



and it was only because of the difficulties in the supply of food that people exaggerated the decline in productivity. The fact is that the War did not cause anything like a revolution in the national food supply, but rather in the demand and distribution of foodstuffs. We shall therefore consider in our next chapter the question of consumption demand.

## CHAPTER VI

### CONSUMPTION DEMAND

#### *Decline of Exports.*

THE effects of the War upon consumption demand made themselves felt in three directions: (a) the loss of a large number of foreign consumers, (b) the appearance of another vast consumer, as represented by the army, and (c) a change in the consumption demand of large sections of the population.

With the exception of salt, the export of the principal foodstuffs dropped enormously, as compared with the pre-war year, and this when the grain exports in 1913 were far from being record exports. As a matter of fact, the grain exported in 1909 amounted to 725.5 million puds, and to 818.3 million in 1910, while the average for the five-year period 1909–1913 was 686.3 million puds and the 1913 figure only 606 million puds. This dropped in 1915 to 37 million puds and slightly recovered to 41 million puds in 1916. The same holds true for sugar, of which 5.7 million puds were exported in 1915 and 3.2 million puds in 1916 whereas 23 million puds were sent abroad in 1911 and 27 million in 1912, and an average of 16 million for the period 1909–1913. Besides, it should be borne in mind that the export figures are not net, since, during the War, there were also imports of foodstuffs from other countries. Among cereals, rice ranked first in these imports. The increase in the import of dairy products, it is to be assumed, was due to the item of condensed milk. In the import of meat and animal fats, the principal item was fats.

It follows from what has been previously stated that grain exports from Russia during the War must be regarded as entirely at a standstill. Comparatively high figures may be found only in the export of butter down to 1916, and of sugar down to 1917. It should be noted, moreover, that the Russian territories occupied by the enemy in 1915 were forced to obtain certain foodstuffs from the interior in times of peace, to supply their deficiencies.

#### *The Army As a Consumer.*

During the War, however, a new consumer appeared, in the form of a huge army. It may be objected, perhaps, that the men

composing this army must have consumed also before the War the equivalent of the food they consumed in the service. This argument would, however, be fallacious, especially when we are dealing with a country such as Russia. In other countries, where the general standard of consumption is higher, the difference between normal and war rations is probably much smaller than in Russia, where the diet of the large masses of the peasantry who formed the bulk of the army was distinguished neither by variety nor volume. Thus we read:

The rural population covers its requirements in proteids to the extent of only one-fifth from the products of the live stock industry, whereas the urban population derives almost two-fifths of its proteid supply from such products. In the supply of fats for the city population, animal products hold a more important place than for the rural population. Again, sugar plays an important part in the supply of the necessary carbohydrates to the city diet, whereas it is used merely as a sweetener in the fare of the peasantry. Calculated on a per capita basis, the consumption of meat, fish, eggs, sugar, butter, and cheese is several times as high in the city as in the country, the latter consuming more bread, grits, vegetables, and milk.<sup>1</sup>

But when the same peasant reaches the army, his diet is raised to the city standard, since meat, butter, sugar, and other such foodstuffs hold an important place in the army ration. This is why we may say that the calling up of a large army was bound to exert upon the market in foodstuffs the same kind of influence that would have been produced had there been a sudden increase in the urban population, with its specific consumption demand. The fact is that the supply of meat, butter, sugar, rice, fish, vegetable oil, and other foodstuffs for the needs of the army reached huge proportions. But the consumption of the army differed from the ordinary fare of the Russian masses not only in point of variety, but likewise in point of quantity. It was considerably richer than the nutrition standards of the rural masses, at least in some, if not all products. For instance, the army demand for buckwheat and millet (in the shape of grits, or coarse meal) was so heavy that it not only absorbed the surplus that had been accumulated in these cereals in consequence of the cessation of foreign exports, but required even additional with-

<sup>1</sup> See B. D. Brutskus, *Ekonomya Selskago Khozyaistva* (Rural Economy), Berlin, 1923, p. 83.



drawals of these cereals from civilian consumption. In this manner the army took the place of the foreign consumer.

The consumption of an army in war differs greatly from peacetime consumption not only so far as the men are concerned, but also in respect of the horses. Sharing with the men many of the burdens of warfare, the horses receive special war-time rations far in excess of what they are given normally, both as regards quantity and quality. Hence the collection of oats for the army was one of the most difficult tasks that confronted the organization charged with the supply of food and forage during the War. It nearly became necessary at one time to prohibit the use of oats outside the army, and great efforts were required to extract them from producers as well as from middlemen.

Let us now examine in greater detail the consumption of the various foodstuffs by the army. Table 37 shows consignments of cereals to the army.

TABLE 37  
CONSIGNMENT OF CEREALS TO THE ARMY

<i>Periods</i>	<i>Food cereals</i>	<i>Fodder cereals (in thousands of puds)</i>	<i>Grits cereals</i>	<i>Total</i>
August, 1914, to July, 1915	57,262	116,370	9,594	183,226
August, 1915, to June, 1916	129,320	198,283	19,709	347,312
August, 1916, to June, 1917 (exclusive of the Caucasian front)	105,028	158,675	20,876	284,579
Total	291,610	473,328	50,179	815,117

These data are not complete. First, the figures of cereals consigned in the months of July, 1916, and 1917 are missing. Second, the 1916-1917 data do not cover the Caucasian front. We believe the figures for 1915-1916 to have been 10-15 million puds higher, and the 1916-1917 figures should be raised by about 40-50 million puds. In the third place, it is absolutely impossible at this time (and probably also at any future time) to ascertain the totals of purchases made directly by the Army Supply Department at the front; yet these purchases are known to have been considerable. Thus, for instance, during June-August, 1915, no food supplies whatever were dispatched to the front, and the army was satisfied with local

provisioning. The total cereal consumption of the army during the three years of the War was probably over 1,000 million puds.

During the first two years of the War the cereal requirements of the army were satisfied completely, but in the third year it received scores of millions of puds less than it needed. An indication of the cereal shortage may be seen in the fact that in December, 1916, the army bread ration was reduced from 3 to 2.5 Russian pounds a day,<sup>2</sup> and this was further reduced to 2 pounds in March, 1917. At the same time the ration of army biscuits was reduced from 2 to 1¾ pounds.

The collection and storage of grain supplies is shown in the following table.

TABLE 38  
QUANTITIES OF CEREALS COLLECTED BY  
GOVERNMENT AGENCIES

<i>Periods</i>	<i>Food cereals</i>	<i>Fodder cereals (in millions of puds)</i>	<i>Grits cereals</i>	<i>Total</i>
August, 1914, to July, 1915	106.2	182.6	13.9	302.7
August, 1915, to July, 1916	233.0	233.0	34.0	500.0
August, 1916, to July, 1917	303.9	185.9	51.0	540.8
Total	643.1	601.5	98.9	1,343.5

The quantities of cereals collected far exceeded both those actually consigned and those needed by the army (this, however, only as we draw no line of distinction between the several kinds of grain). The actual orders for cereals issued by the Army Supply Department were as follows: From August, 1915, to November 1, 1916, the total requirement of the army was calculated at 371 million puds. The requirement for 1916-1917, according to the same orders, was to be 396 million puds (November 1, 1916, to November 1, 1917). But we cannot rely upon these figures, since we have no way of finding out what changes were subsequently made in the original orders. For the first year of the War (August, 1914, to August, 1915), the orders did not exceed the actual dispatches, but here, again, we are not in a position to give accurate figures.

The natural question, then, must be, where did the excess of the

<sup>2</sup> See p. 169, n. 8.

collected and stored supplies go to? It was disposed of, partly, in the following manner.

Between August, 1915, and August, 1916, various institutions and the civilian population were given 58.7 million puds of cereals and 16.3 million puds of seeds, thus receiving a total of 75 million puds. After the summer of 1916 the Special Council was charged also with the duty of supplying cereals to the workers in the Donets mining region, to the railway workers, to the inhabitants of Finland, to workers employed in munition factories, and to some other classes of the population. Assistance with supplies had also to be given to Turkestan, Petrograd, and Moscow, and the consuming provinces that lacked adequate supplies of their own. Had it been attempted to satisfy all of the demands completely, it would have been necessary to collect between August, 1916, and August, 1917, as much as 746 million puds of cereal supplies (655.3 million were apportioned among the various commissioners of the Special Council throughout the country). Regarding the grain issued to the population in 1916-1917 we regret that we possess no reliable data.

Reports on the collection and storage of meat, fats, and certain other foodstuffs for the army were never published, not even for official use. Only for 1916 do we find any tentative figures concerning the needs of the army in meat, fats, etc. With the help of these figures and our knowledge of the exact number of men called to the colors each year of the War, a general outline of the army demand for such foodstuffs can be given.

### *Meat.*

For 1916, the requirements of the army in meat were reckoned at 40 million puds. Taking live stock of average size and quality, this would represent about 4 million head of large horned cattle. The Division of Meat Supply proposed to take 450,000 head in the provinces near the front and the remainder in the interior, which was thus expected to supply for the army as much as 100,000 puds of meat a day. After what has been said of the character of the Russian meat market, it is hardly necessary to expatiate on the extraordinary difficulties involved in obtaining so vast a supply. By the middle of 1916 it was obvious that it would be impossible to raise the necessary amount of meat by purchase in the open market. It now became necessary to have recourse (with the effective assistance



of the zemstvos) to a regular levy on the live stock. The army meat ration had already been cut down at the beginning of that year, with the result that the rations of grits, rice, peas, lentils, and beans had to be raised and white bread had to be introduced in the diet of the soldiers. The meat ration was reduced from one Russian pound to three-fourths a day, while the noncombatant units were allowed only half a pound; besides, two days (Wednesday and Friday) were set aside as meatless days. Lastly, permission was granted to the authorities to supply more fish to the soldiers than previously.

#### *Fats.*

For 1916, the fat needed by the army was calculated at 4 million puds. The soldiers preferred fat to butter, but it was found impossible to prepare an adequate supply of fats, and it was thus necessary to buy heavily in the butter market. According to incomplete data, the amount of butter collected and stored for the use of the army was as follows: from the beginning of the War to June 15, 1915, 1,227,000 puds; from June 16, 1915, to June 1, 1916, 1,905,000 puds; and from June 1, 1916, to June 1, 1917, 3,163,000 puds. This, however, did not cover the entire demand (for 1915-1916, the demand was calculated at 2,500,000 puds, but the total collected was only about 2 million). As for data regarding the collection of fats, we regret that none are available.

#### *Sugar.*

For 1916, the requirements of the army in sugar were calculated at 10 million puds, but as a matter of fact the quantity needed was far greater than this. On April 7, 1916, the sugar ration of the soldier at the front was fixed at  $5\frac{5}{8}$  pounds a month, viz.,  $3\frac{7}{8}$  in kind and the balance in cash. For the noncombatant troops in the rear, the ration was  $1\frac{7}{8}$  pounds a month. In August of that year the conference of commissioners requested a reduction in these rations. When we recall the fact that the monthly per capita consumption of sugar in Russia during the period 1911-1913 was only  $1\frac{1}{2}$  pounds, we are forced to admit that the sugar consumption of the army was very high, especially when we consider that the majority of the soldiers, being peasants, had never consumed even the pre-war average.

All these facts reveal very clearly the effect of the demand of the army upon the Russian market in foodstuffs. But, as we shall see presently, the army demand presents also certain features that have an effect upon the level of prices as well.

First, the purchasing operations of the Government were so vast that they were far in excess of anything that might have been done by any wholesale buyer, foreign or domestic. We therefore have to deal here with an extraordinary concentration of demand in a single purchasing organization.

Second, the demand of the army was imperative, inelastic, and—most important of all—highly urgent. Middlemen and speculators were naturally strongly tempted to profit by this combination of favorable circumstances, and the result was that the well-known rule that lower prices are asked in large than in small transactions would probably break down completely in this case.

Third, the consumption demand of the army was in a very slight measure affected by the level of prices; the rising prices did not bring about an automatic curtailment of this demand, as it might have done in a normal market situation. By this, we do not mean to say that there are no possible conditions that might have tended to reduce the demand, as well as the consumption, of the army. All we wish to emphasize is that the price level was not one of these conditions, or, in any case, that the price level of itself was incapable of paralyzing any portion of the demand of the army. The explanation of this proposition is very simple: the needs of the soldier are fixed by the Government in advance; the general resources of the country rather than existing price levels are, primarily, taken into account, and the Government stops at nothing to cover this demand, if necessary. In other words, changes in the level of prices result merely in changes in the gross amount of the expenditure, leaving entirely unaffected the consumption demand of the army. The question whether this demand can be satisfied in full or in part will depend upon the quantity of products coming into the market, and not upon prices. It is otherwise with the consumption demand of the population, where money earnings and monetary consumption resources (see Chapter I) form the only definite quantity for every given moment, while consumption demand and consumption itself change with changes in price, although, of course, not solely under the influence of this particular factor.

When we take into consideration the high degree of concentration and the peremptory character of the army demand, and its inelasticity, together with the willingness of the Government to pay any price within reason, we may understand the peculiar helplessness and defenselessness, if we may so express ourselves, of the army in the face of any possible conspiracy of producers and dealers in the foodstuffs market. We can then realize how strongly these people are tempted to profit by such a combination of circumstances.<sup>3</sup> Hence, if the Government finds itself in a difficult financial position, or if it hesitates to continue indefinitely the use of the printing press to pay for army orders, it resorts, not to a reduction of the army demand, but to measures tending to influence market conditions and prices, adopted by the Government in its capacity of maker of the public law.

*Consumption Demand of Different Sections of the Population.*

We shall now briefly survey the changes observed in the consumption demand of various sections, or groups, of the population during the War. In this attempt, we have to rest satisfied with evidence of a general character only, as it is impossible to express the consumption demand of the population in definite figures. For this reason we propose to consider only such data as may indirectly reflect the changes in the monetary incomes of the population. For example, great significance must be attached to the increase in deposits with the State savings banks, and to the growing value of the securities deposited with and administered by these banks. Table 39 shows this in detail.

TABLE 39  
DEPOSITS IN THE STATE SAVINGS BANKS

<i>Date</i>	<i>Cash deposits</i>	<i>Average deposit per depositor (in rubles)</i>	<i>Securities held (nominal value)</i>
January 1, 1913	1,594,900,000	189	318,300,000
January 1, 1914	1,685,400,000	199	348,600,000
January 1, 1915	1,835,000,000	199	401,000,000
January 1, 1916	2,448,600,000	245	664,400,000
January 1, 1917	3,769,000,000	...	.....
October 1, 1917	4,915,000,000	...	.....

<sup>3</sup> In 1914-1915, 60 per cent of all grain purchases were made through the medium of middlemen; in 1915-1916, only 50 per cent.



There was also an increase in the deposits and current accounts in the State Bank, as well as in the commercial joint-stock banks, as shown by Table 40.

TABLE 40

DEPOSITS AND CURRENT ACCOUNTS IN THE STATE BANK  
AND IN JOINT-STOCK BANKS

Date	<i>Deposits and current accounts in the State Bank</i>	<i>Deposits and current accounts in com- mercial joint- stock banks</i>	<i>Total</i>
		<i>(in rubles)</i>	
January 1, 1914	263,100,000	2,410,700,000	2,673,800,000
January 1, 1915	478,100,000	2,774,600,000	3,252,700,000
January 1, 1916	954,300,000	3,834,300,000	4,788,600,000
January 1, 1917	1,379,200,000	6,747,600,000	8,126,800,000

We must recognize that the character of bank deposits varies considerably and that their increase is not itself sufficient ground for definite conclusions concerning the growth of the money incomes and savings of the population. For instance, reduced operations, or the complete closing down of certain business undertakings after the declaration of war might have liberated a great amount of operating capital and brought it into the banks. But the effects of this must have been evident during the first year and a half of the War. It therefore seems certain that the increase in bank deposits must be regarded as proof of increased money earnings among a considerable group of the urban population (for the peasantry did not, as a rule, have any dealings with the banks).<sup>4</sup> Still, these summarized data regarding the growth of bank deposits cannot relieve

<sup>4</sup> The two preceding tables have been compiled from the report of the State Bank for 1916; also, from the *Ezhegodnik* (Yearbook) of the Ministry of Finance for 1916; from the *Prilozhenya* (Supplements) of the report of the State savings banks, and from the survey entitled *Russkie Aktsionernie Kommercheskie Banki* (Russian Joint-Stock Commercial Banks), published by the Committee of the Congresses of Representatives of Joint-Stock Commercial Banks in 1917; see *Narodnoe Khozyaistvo v 1916 Godu*, issue VII (statistical tables, pp. 172-189), and the article by A. N. Sack in the same publication, issue II, 1916, pp. 31, 33 sqq. For 1914, we have taken the figure of deposits in the commercial banks, excluding nine such banks operating in the occupied territory.

us of the obligation of looking more closely into the movement of money incomes among the various groups of the population. We shall begin our examination with the incomes of the urban classes.

The enormous profits of manufacturers and other business enterprises that had anything to do with the supply of the army are beyond doubt. There is deep significance in the fact that the revenue derived from the tax on commerce and industry in 1916 was twice as large as that collected in 1915, namely, 445.6 million rubles as against 212 millions, or 110 per cent more. M. Dementiev offers the following observations on this point:

Why did the revenue from business taxation increase to such a vast extent—by 233.6 million rubles—in time of war, when trade and industry, at least in so far as they are devoted to the gratification of the daily needs of the population, are, as a rule, in a state of depression because of the scarcity of raw materials and fuel, and owing to the suspension of communication with the foreign markets? Simply because a large number of industrial establishments were employed in supplying the requirements of the army, and were specially equipped for this work. The Ministries of War, Marine, and others, having no lack of funds at their disposal, paid the bills of manufacturers and contractors generously from the credits assigned to them. Manufacturers, large commercial establishments, and the various contractors and middlemen dealing with these establishments and government officials, all made large profits. . . . It was a part of such profits earned at the expense of the Government that found their way back to the Treasury in the shape of taxes on commerce and industry.

In reality, the mining, iron, engineering, cotton, wool, linen, and jute industries were working at full capacity, at least so far as the general scarcity of raw materials permitted. There was a depression in the distillery business (and in the industries converting mineral substances, owing to the curtailment of building activities, which cut down brick and cement production, and the reduced demand for beer and liquor bottles). In those branches of industry which supplied the market with articles formerly imported from foreign countries, again, the situation was far from critical.

To make the situation perfectly clear, we must add that the decline in certain branches of industry does not necessarily signify that they are losing profits, as a reduced output may be compensated by increased prices. A good case in point is the milling in-

dustry. In 1916, when the secretariat of the Special Council on Food Supply calculated the dividends and profits of the flour mills during the preceding war years, it appeared that their financial returns were excellent, in spite of the numerous obstacles that beset their operations. Nor did the merchants have cause to complain, especially the wholesalers, who found the opportunity to accumulate large stocks of goods and dictate market prices. While so many commodities were scarce, this was, of course, very easy. The retail merchants, likewise, seem to have been making large profits, for the savings deposited in the banks by members of the commercial classes rose from 149.5 million rubles in 1913 to 283.7 millions in 1915. For 1916 we are unable to furnish any figures of savings.

Hand in hand with increased profits of industrial and commercial enterprises went the increase in the earnings of employees such as directors, managers, etc., in these enterprises. Salaries of clerks and officials in government institutions likewise rose. As a result, we find that the savings deposits of these classes of the population also increased considerably: in 1913 they amounted to 302.6 million rubles, and in 1915 they had risen to 444.5 millions.<sup>5</sup> Army officers, also, were paid more during the War, so that their families, who lived mostly in the cities, found themselves with more money at their disposal. The deposits of army officers at the savings banks were: 1913, 17.2 million rubles; 1914, 34.5 millions; and 1915, 65.8 millions. Smallest of all was apparently the increase in money incomes among the clergy and domestic servants.

To bring our examination of the money incomes of the urban classes of the population practically to completion, we still have to consider the wages of factory workers. It is greatly to be deplored that the lack of properly verified and adequate material dealing with this point leaves the whole matter still somewhat obscure. On the one hand, it is safe to say that the reduction in the number of available hands, owing to successive mobilizations, ought to have resulted in higher wages. On the other hand, in the establishments engaged on work for national defense, such as munition works, etc., we find a certain counteracting factor at work, in the shape of exemption from army service for those employed at such establishments. These workers found themselves tied down to whatever place they hap-

<sup>5</sup> Civil, public, and private employees.



pened to be working at, if they wanted to benefit by the exemption, and this naturally discouraged them from pressing too much for higher wages. Exemption from military service granted to many classes of workmen must have considerably abated competition among the employers, and must consequently have strongly counteracted any increase in wages, especially as large numbers of workers were anxious to obtain employment at places where they would be granted such exemptions.

At the same time we must not overlook the fact that in many industrial establishments the employers provide the workers with dwelling accommodation, with the possible result that the general rise of rents may have had no effect whatever upon such workers. Moreover, during the War, many factory administrations organized food supply departments of their own, which bought the food required for the employees and sold it to them at cheap rates, assuming the resulting loss. There were instances where factory administrations bartered their own products (e.g., plows) for grain, thus obtaining it more cheaply than they could by purchase in the market.

Finally, toward the autumn of 1916, the Minister of War was ordered to supply the men and women employed in factories working for national defense, as well as their families, with the regular army cereal rations (amounting to 86.4 million puds of flour and 5.5 million puds of grits a year). The meat supply for such workers, likewise, received particular attention after the middle of 1916. No doubt, not all these measures proved effective, but a great deal was accomplished nevertheless (in any case, before the outbreak of the Revolution). In the matter of sugar supply, too, the workers were placed in a separate category, being entitled to increased rations.

We thus observe, side by side with factors tending to keep wages in national defense employments low, other factors, tending to compensate for this disadvantage, especially since the Government was able to buy foodstuffs after the close of 1915 at prices below those of the market.

Lack of adequate material makes it impossible for us here to furnish a survey of the movement in wages on an all-Russian scale. We may refer, however, to figures illustrating the wage movements in the Moscow industrial region:

YEARLY WAGES OF AN ADULT MALE WORKER<sup>6</sup>

<i>Year</i>	<i>Rubles</i>	<i>Percentage</i>
1913	257	100
1914	263	102
1915	307	119

Further data supplied by the Factory Inspection Service are not available. But in 1916 there was evidently a considerable rise in wages. According to the reports of the Manufacturers' Association of the Moscow industrial region, the movement in the monthly wages of an adult male worker between October, 1915, and August, 1916, was:<sup>7</sup>

## MONTHLY WAGES OF AN ADULT MALE WORKER

<i>Month</i>	<i>Rubles</i>	<i>Percentage</i>
1915, October	44.3	100
1916, February	45.9	103.6
June	74.6	168.3
July	69.7	157.3
August	71.4	161.1

After the March Revolution the rise in wages was on an extraordinary scale.

Workers' deposits in savings banks during the War also showed a tendency to increase. In 1913 these deposits amounted to 72.5 million rubles; in 1914, 76.9 millions; in 1915, 97.7 millions (after that, no data are available).

All that has been stated thus far has reference only to the money earnings of the population. But we must also bear in mind that the very structure of the Russian family budget underwent a radical transformation in the course of the War, thanks to the elimination of expenditure on liquor. Prohibition of the sale of beer and vodka made it possible for the population of the cities to devote something like 400 million rubles a year to the acquisition of other articles, including foodstuffs.

<sup>6</sup> See Prokopovich, *op. cit.*, p. 144; also S. Turin, *Trud i Zarabotnaya Plata*, in *Trudi Komissii po Izuchenyu Prichin Sovremennoi Dorogovizni*, issue III, pp. 233-234.

<sup>7</sup> See Prokopovich, *op. cit.*, p. 145; also R. Claus, *Die Kriegswirtschaft Russlands*, Bonn and Leipzig, 1922, p. 59.

We may now discuss the war-time consumption demand of the rural population. Here we are fortunate in having at our disposal more reliable and comprehensive data than we had in respect of the urban population.

The monetary earnings and resources of the peasantry increased during the War to an extraordinary extent. To begin with, there was a radical transformation in the very budget of the rural classes, as a result of liquor prohibition. This in itself would have been sufficient to increase the cash resources of the peasants even if its aggregate cash income had remained stationary, by about 600 million rubles a year. Another factor was that the peasants were paid large sums for their horses, vehicles, drivers, etc. According to a calculation by M. Prokopovich, this item alone yielded them approximately the following sums: in 1914-1915, 310 million rubles; in 1915-1916, 180 millions; and in 1916-1917, 90 millions. Lastly, the allowance paid to families of mobilized men amounted, approximately, to: 340 million rubles in 1914-1915; 585 millions in 1915-1916; and 1,386 millions in 1916-1917. These families continued, of course, to work their farms, so that the special allowances formed a handsome addition to the money earnings of the peasantry during the War.

When we compute the cash resources of the peasants obtained as a result of this reduction of expenditure and increase of income, we obtain the following substantial figures: 1914-1915, 1,250 million rubles; 1915-1916, 1,365 millions; and 1916-1917, 2,076 millions (the aggregate money income of the peasantry in times of peace never exceeded 1,500 million rubles).

In addition to the above sources of income, the higher wages yielded to the peasantry large amounts of cash during the War, as compared with normal times, for, while the number of farm laborers seeking employment outside their native villages was greatly reduced, as explained elsewhere in this volume, wages rose to such an extent that they probably have increased the sum total cash earnings of the peasantry. Table 41 shows the movement in agricultural wages during 1915 and 1916.



TABLE 41  
INDEX NUMBERS OF AGRICULTURAL WAGES  
IN 1915 AND 1916<sup>8</sup>

<i>Zones and regions</i>	<i>Index number of wages in 1915</i> <i>(wages in 1909-1913 = 100)</i>			<i>Index number of wages in 1916</i> <i>(wages in 1915 = 100)</i>		
	<i>Male</i>			<i>Male</i>		
	<i>worker</i> <i>with</i> <i>horse</i>	<i>Male</i> <i>worker</i> <i>alone</i>	<i>Female</i> <i>worker</i>	<i>worker</i> <i>with</i> <i>horse</i>	<i>Male</i> <i>worker</i> <i>alone</i>	<i>Female</i> <i>worker</i>
<i>Zones:</i>						
Black-earth zone	169	169	159	171	185	166
Other zones	165	168	146	195	206	202
<i>Regions:</i>						
Southwest	152	147	135	180	171	195
Ukraine	174	179	166	176	186	156
Central Agricultural	178	182	148	179	185	156
Middle Volga	182	148	160	175	188	177
Novorossisk	165	185	169	149	171	163
Southeast	162	172	174	154	157	158
Baltic	117	115	120	165	163	164
White Russia	157	181	154	209	221	196
Lake	176	173	180	205	221	233
Industrial	173	283	157	192	199	193
Northern	196	144	147	216	203	214
Northeast	199	174	171	166	193	216

We may cite, furthermore, data supplied by the secretariat of the Special Council, illustrating the rise of wages during the spring and summer season of 1916, as compared with wages during the period 1909-1913. The figures for 1916 were obtained from the zemstvos, while those for 1909-1913 are from the publications of the Ministry of Agriculture.

<sup>8</sup> See *Narodnoe Khozyaistvo v 1916 Godu*, issue V-VI, p. 6. The black-earth zone includes the following regions: southeast, Ukraine, central agricultural, middle Volga, Novorossisk, southeast; "other zones"—Baltic, White Russia, lake, industrial, northern, northeast.

TABLE 42  
INDEX NUMBERS OF AGRICULTURAL WAGES IN THE  
SPRING AND SUMMER OF 1916<sup>9</sup>

Regions	(Wages in 1909-1913 = 100)				
	<i>Male worker with horse, self-main- taining</i>	<i>Male worker alone self-main- taining</i>	<i>maintained by employer</i>	<i>Female worker self-main- taining</i>	<i>maintained by employer</i>
Volga	206	220	233	159	154
Novorossisk	204	274	265	227	225
Southwest	238	293	...	215	204
Ukraine	227	244	233	191	168
Central Agricultural:					
Group I	286	305	292	240	196
Group II	301	315	343	305	296
Ural	302	327	267	238	229
White Russian	314	375	413	310	308
Industrial	335	314	315	261	250
Northern and Lake	369	382	456	355	358
Baltic	205	209	202	203	195

The two preceding tables require no further commentary, particularly as they are based upon extensive data covering all the provinces of European Russia. The only thing deserving special notice is the fact that in 1916 the rate of growth in wages was more rapid than in 1914-1915. In the black-earth zone, the employment of prisoners of war was a factor in checking the rise.

Finally, a steady increase in the prices of agricultural produce also helped to swell the cash earnings of the rural population during the War. This aspect of the question, however, is very complicated, since the rise in these prices is itself in part a result of increasing money resources among the peasants, as well as of the attitude developed among them by this increase in money. Considered as a separate factor, a rise in the prices of agricultural produce could

<sup>9</sup> See *Materyali po Voprosu ob Ustanovlenii Tverdikh Tsen na Khlebnii Produkti do Urozhaya 1917 Goda* (Materials for the Introduction of Fixed Prices until the Harvest of 1917), Petrograd, 1916, Part I, Appendix, Table 3; also *ibid.*, Part II, pp. 202, 224. The division of the provinces of the central agricultural region into two groups is due to the difference in the labor conditions. Group I includes the provinces of Voronezh, Kursk, Tambov, Penza, and Simbirsk; Group II, the provinces of Orel, Tula, Ryazan, and Kaluga.

have added to the money earnings of the peasantry only so long as they remained passive in the face of a market situation that was shaping itself irresistibly, leading to an advance in prices regardless of what the peasants might do to promote it. But to the extent to which the peasants, by withholding their produce so as to reduce the effective supply in the market as compared with the possible supply, were contributing to the rise in prices; and to the extent to which such retention of produce was the sign of their already strong economic position, that is, the possession of abundant funds; to this extent the rise in the prices of agricultural produce was itself a consequence of the increase in the cash resources of the peasantry, although it led at the same time to further increases in their money incomes and to a further strengthening of the position in the market of the small-scale producer.

We must add, however, that the increase in cereal prices was not everywhere a factor contributing to the money incomes of the peasantry. As a matter of fact, in a large part of the country outside the black-earth zone, the peasants have not enough cereals to satisfy their own wants, and during the latter part of the agricultural year they are forced to buy them in the open market. In these sections of the country, therefore, rising grain prices signify, for the local peasants, not increased earnings, but, on the contrary, increased expenditure. Nevertheless, for a great proportion of the peasantry the opposite remains true. Therefore, upon the whole, rising cereal prices resulted in rapidly growing cash earnings among the peasants. In the parts of the country outside the black-earth zone where the peasants had to buy extra grain for their own wants, they found some compensation, besides those mentioned in the preceding paragraphs, in the higher prices which they obtained for other agricultural products that they happened to be raising, such as fodder, flax, hemp, dairy products, etc.

One of the proofs of an increase in available cash resources among the peasants during the War may be found in the growth of the sums deposited with the savings banks, in spite of the well-known fact that the Russian peasant prefers to hoard his savings rather than entrust them to a bank. The growth of the deposits belonging to persons engaged in rural occupations was as follows: 1913, 480.2 million rubles; 1914, 501.6 millions; 1915, 637.7 millions.

It seems to us that, when all the foregoing is kept in mind, there



can hardly be room for doubt that the War produced a profound change in the condition of the peasantry. Before the War, when people ventured to speculate on the effects a war might possibly produce upon the national economy, the displacement that might take place in the life of the peasantry was totally left out of consideration.

Taking the market in foodstuffs as a whole, we may say that the increase in money resources in the rural sections of the country had far-reaching consequences. In the first place, this increase resulted in a heavier consumption of their own produce by the peasants. Naturally, this could occur only in those peasant households which produced more than they usually consumed. Others, which did not produce enough for their wants, were, of course, not able to increase the consumption of their own products. But they presented at the same time a heavier demand upon the market.

The situation, therefore, was as follows. Those peasants who were marketing their products curtailed their market supply because of their increasing "latent" demand for these products, that is, their own home consumption. On the other hand, those peasants who did not produce all that they themselves required were making a heavier demand upon the market, they increased the visible demand. Both classes of the peasantry strove to increase their home consumption; but while the one managed this easily by curtailing the supply of its produce to the market, the other was striving to attain the same result by making an increased demand upon the market. It is evident that the first group was in a more favorable position than the second, since the latter, in its striving for heavier consumption, depended upon general conditions prevailing in the market. Both phenomena—heavier latent demand, as well as heavier visible demand—could not but contribute to the rise in the prices of agricultural produce.

Let us study the latent demand at some length. The least change, it is to be assumed, was observed in the latent demand for cereals, since these always formed the staple article of food among the peasants and the demand for them could be satisfied more completely than that for other foodstuffs. Today it is no longer easy to ascertain the movement in cereal consumption among the peasantry during the War. Certain data cited by Kondratev on the consumption of rye in five producing provinces would seem to indicate an in-

crease of about 15 per cent in the 1915 consumption over that of 1911–1913. We are not aware of the process by which these figures were obtained, but we surmise that they include, for 1915, part of those supplies which were kept by the peasants off the market, but which they did not at the same time use for themselves. For our own part, we are inclined to think that the consumption of cereals by the peasantry in the producing areas increased only slightly during the War, say, 5 to 10 per cent.

The situation was different, however, in respect of other articles of food, such as meat, milk, butter. As has been pointed out earlier in this volume, in normal times the Russian peasant used but little meat in his diet. During the War, however, there was a great change in this respect. Thus we read:

The population, having suddenly had its money resources increased thanks to the cessation of the sale of liquor and to the special allowances paid to families of soldiers, took the opportunity to nourish itself better, turning in the first place to meat; according to data supplied by some of the zemstvos, meat consumption in the rural districts has increased 150 to 200 per cent.<sup>10</sup>

Another factor in the situation was that the increase in the available money resources of the rural population led to a heavier demand by the latter for foodstuffs that they themselves did not produce. This formed the visible demand of the peasantry upon the market in foodstuffs. The objects of this demand were sugar, the better grades of wheat flour, herrings, vegetable oils, and some other commodities.

The demand for sugar increased vastly among the peasants during the War. The Food Supply Commissioner of Kazan, for instance, had many interesting details to report in this respect at the close of 1915. In his travels through the province he was struck by the fact that the inhabitants were willing to pay very high prices for sugar, which they were buying heavily. The same phenomenon was observed also among the retail merchants. In the city of Kazan the merchants were afraid to sell sugar at more than 20 copecks a pound, but in the country districts they were selling it at greatly increased prices. The minutes of the proceedings of the Sugar and Tea Commission tell us that there was an enormous increase in the

<sup>10</sup> See *Obzor Deyatelnosti Osobago Soveshchanya po Prodovolstvu*, p. 92.

demand for tea and sugar. In 1914 and 1915, for instance, four times more granulated sugar was brought into Kazan province than in other years.<sup>11</sup> The candy factories of Kazan were striving in every possible way to enlarge their production, investing substantial amounts of money in machinery, and even in the villages scores of small establishments had appeared, making all kinds of sweets by hand. This increase in the prosperity of the peasants, as of the rest of the population, brought with it a heavy demand for grits, millet, vegetable oils, etc.<sup>12</sup>

The Orenburg provincial council on food supply decided in 1915 upon an extension of price control to articles of prime necessity in the rural districts, since price regulation in the cities simply resulted in an enormous divergence between city and country prices. There were, furthermore, instances in which sugar and salt, despite the acute shortage of these articles, would be sent from the city to rural districts, there to be disposed of at arbitrarily high prices.<sup>13</sup>

We may sum up as follows what has been said here with reference to the growth of money resources among the peasants and the results of this growth.

Thanks to the elimination of the expenditure on liquor, the vast sums received in allowances from the Government for the families of the soldiers, and the high wages, the peasants felt at liberty to dispose of their produce to better advantage. Freed from the former pressure of money scarcity and relieved of the necessity, therefore, of selling their produce at any price, they were able to increase their home consumption of such articles, and this naturally reduced the potential supply of these articles in the market. Further, their larger money resources made it easier for the peasants simply to refuse to sell whenever that seemed the more advantageous course, and thus to reduce the effective supply below the potential supply. Both these circumstances, together with the general market situation, neces-

<sup>11</sup> This seems too high a figure. Other sources speak of only twice the normal amount.

<sup>12</sup> See *Obshchaya Soobrazheniya o Prichinakh Dorogovizni* (General Considerations on the Causes of the High Cost of Living), p. 36.

<sup>13</sup> *Ibid.*, p. 36; see also *Svedeniya o Polozhenii Prodoovolstvennago Dela v Petrograde, Moskve, i Drugikh Mestnostyakh Imperii na 29 Yanvarya 1916 Goda* (Data on the Condition of Food Supply in Petrograd, Moscow, and Other Parts of the Country on January 29, 1916), published by the Special Council on Food Supply, Petrograd, 1916, p. 17.



sarily raised prices of farm produce, and this alone was sufficient to increase still further the flow of money into the rural districts, strengthening the peasant's position in the market. At the same time the available cash resources of the peasantry stimulated a growth in the visible demand of the rural population for foodstuffs that they themselves did not produce, but had to seek in the open market. In so far as the cash resources of the peasants were a result of the high prices of their own produce, it goes to show that the dearness of one commodity may be imparted to other commodities, through the changes in the money resources and expenditure of certain groups of the population.

### *Conclusion.*

The entire situation may be summarized in this manner. The visible demand for foodstuffs during the War underwent some very great changes. In the first place, there was eliminated, either entirely or in a considerable measure, the demand of the foreign consumer, particularly in the case of cereals, where the foreign export sank so low that we may simply ignore it altogether.

In the second place, an immense army came into being, and its demand was far in excess of the normal demand of the people who composed it. In the case of certain foodstuffs, such as sugar, meat, grits, this excess was very heavy. The demand of the army for grain fodder, likewise, was unusually high. Moreover, there were certain peculiar features about the army demand which tended to make it an important factor in the advance of prices.

In the third place, the demand presented to the market in foodstuffs by the urban population can hardly have diminished during the War, in so far as it may be inferred from the increase in savings and bank accounts. Certain classes of consumers were unquestionably in a position to keep their demand at the usual level, or even raise it (for instance, to lay in reserve supplies), without restricting their demand for commodities other than food. Other classes of urban consumers probably found some difficulty in keeping up their usual level of demand. To do so would no doubt absorb not only the entire increase in their incomes and all free cash resources left at their disposal by the elimination of the liquor item from their budgets, but would probably oblige them to restrict in a large measure their consumption of a number of articles other than foodstuffs.

Fourthly, and lastly, the visible demand of the peasants for commodities not produced by themselves undoubtedly increased heavily (sugar, tea, high-grade wheat flour, vegetable oils, etc.). There was, moreover, an increase in the visible demand of the peasantry for farm produce in parts of the country that did not raise enough for home consumption. As to the invisible (latent) demand of the peasantry in areas yielding adequate supplies of food, there is no doubt that it increased heavily, especially the demand for meat and dairy produce.

## CHAPTER VII

### PROBABLE RATIO OF POTENTIAL SUPPLY AND ORDINARY CONSUMPTION DEMAND

#### *Difficulties of the Problem.*

ON the basis of the data of Chapter VI, we may advance a proposition that seems incontestable and will provide us with a point of departure for further study. It is that, both the producer and the consumer were able throughout the war period, thanks to the state of their money resources, to maintain their demand (latent in one case and visible in the other) at the level of peace-time consumption, notwithstanding the rise in prices that has been noted. While we do not intend to say that every form of this demand could actually be met, we believe this proposition to be, on the whole, indisputable. There remains only the question of whether there did not exist during the War an increased latent consumption demand, in addition to the increased visible ordinary consumption demand. We shall endeavor to elucidate this point.

Still, we cannot shut our eyes to the extreme difficulties in the way of such an attempt. We ought, in reality, to trace the price movement in chronological order, taking account of its probable reaction upon production and earnings, and, consequently, upon the potential supply and the ordinary consumption demand. Indeed, if we were to assume that prices at the beginning of the War were determined by the relation between ordinary consumption demand and potential supply; and if we were to arrive at the conclusion that, in these circumstances, prices would have to decline, it would follow that, during the ensuing period, we should have to reckon with some imaginary rather than actually existing production and so forth, such as existed while prices were in fact higher. It is obvious that we should then at each succeeding moment find ourselves deeper and deeper in the realm of purely fantastic speculation.

There is, however, a way of avoiding this slippery path by limiting the scope of our investigation in the following manner: assuming that price is determined by the ratio between ordinary consumption demand and potential supply, we may merely try to demonstrate that, at each particular moment, under existing circumstances (and regardless of what the cause might have been pre-



viously), there is no cause for a further rise in the price of some produce.

Let us try to apply this method to the cereal market. In this instance we may adopt either of two possible courses. We may take the grain harvest for each year of the War, deduct from that the amount used for seed and the consumption of the producers themselves (reckoning it on the peace-time basis), and then, having thus obtained the volume of potential supply, set this against the amount of cereals required by those inhabitants who either produce none at all or only in quantities insufficient to meet their requirements (here, again, we should take peace-time figures as the basis of our calculation). In this manner we obtain something approximating to the presumable ratio between potential supply and ordinary consumption demand during the War, making, it is true, certain allowances as regards the volume of consumption demand (latent and visible). All that remains to be done after this is to verify the allowances made for latent and visible ordinary consumption demand. This would be one way of proceeding.

We may, however, adopt another course, and while it may seem cruder, it has the advantage of being more accurate. We may set against the total production the total consumption demand, both latent and visible, reckoned on the basis of peace-time consumption. This reveals at once the surplus (excess of production over consumption demand), or deficit (excess of consumption demand over production), of cereals during the War. In this way we obtain most reliable data regarding the per capita peace-time consumption without division into urban and rural consumers.

This should not be taken to mean that no attempt was made in Russia to arrive at consumption rates for urban and rural population separately. There certainly was such an attempt, but it was confined to a limited number of provinces, covering different years previous to the War, and, besides, these statistics were inaccurate. This is why M. Demosthenov during the War recommended to the secretariat of the Special Council on Food Supply the following method of ascertaining peace-time rates of consumption.

#### *Method of Ascertaining Peace-Time Consumption.*

For each separate province of the country the receipts and dispatches of foodstuffs by rail and water, as well as exports and im-

ports cleared by the customhouses, are ascertained. Balancing all these movements of foodstuffs, we obtain the net figures for dispatches or receipts for each separate province. Deducting from the total production of each province its net dispatches, wherever there have been any at all, we then obtain the consumption figure for that province. Knowing the population figures, we can easily establish the per capita consumption rate. On the other hand, if there has been a net receipt from the outside, this is added to the local production figures, thus furnishing the consumption figure. Rates of consumption computed by this method have the peculiarity that the figures for certain foodstuffs include not only the amount required for personal consumption, but also for productive purposes, as, for instance, seed, and it is very important to bear this in mind. Moreover, such rates of consumption will be found to include also those stocks of foodstuffs which it was customary for the inhabitants to keep in hand; in other words, they will be found particularly useful in judging of the ordinary consumption demand.

On the other hand, these rates, in the case of some products, represent relative quantities, affected by the inaccuracy of the statistics of production. For example, the underestimated cereal harvest figures of the Central Statistical Committee undoubtedly left their mark upon the rates of consumption. But the very fact that the rates thus obtained agree with the figures of production must be regarded as their great merit, making them particularly useful for ascertaining the surplus and deficit of cereals in any current year, provided that the statistics of production are from the same source (and this happens to be so). M. Demosthenov accordingly collected and arranged these data, so as to establish the annual average consumption of the chief cereals, for the period 1908–1911.<sup>1</sup> M. Yashnov followed this up with his own work of the same nature for the five-year period 1909–1913, which, incidentally, shows unusually high harvests and normal consumption.<sup>2</sup> Hereafter we shall take the figures for 1909–1913 as our base.

<sup>1</sup> See *Materyali dlya Suzhdeniya o Srednikh za 1908–1911 Vivoze i Vvoze Glavneishikh Prodovolstvennikh Produktov* (*Materials for Judging the Average Imports and Exports of Cereals for the Period 1908–1911*), Petrograd, 1916.

<sup>2</sup> See *Proizvodstvo, Perevozki i Potreblenie Khlebov v Rossii, 1909–1913* (*Production, Transport, and Consumption of Grain in Russia, 1909–1913*), issue I, Petrograd, 1916.

The figures of surpluses and shortages of cereals for the entire war period, taking into account the movement of the population and the requirements of the army, were computed carefully by M. Kondratev,<sup>3</sup> and are as follows:

TABLE 43  
SURPLUSES AND DEFICITS OF CEREALS

<i>Year</i>	<i>Food cereals</i>	<i>Grits cereals</i>	<i>Miscellaneous cereals (in thousands of puds)</i>	<i>Fodder grains</i>	<i>Total</i>	<i>Potatoes</i>
1914-1915	+502,867.0	-24,076.1	+60,443.2	+54,324.6	+593,558.7	+268,111
1915-1916	+767,666.7	+31,864.8	+51,268.0	+93,668.6	+944,468.1	+350,354
1916-1917	+7,641.6	-10,583.5	+26,033.2	-111,806.2	-88,714.9	-103,050
Total	+1,278,175.3	-2,794.8	+137,744.4	+36,187.0	+1,449,311.9	+515,415

If we assume that the aggregate consumption demand (both latent and visible) of the population was not larger than the peace-time consumption; that the seed requirements were the same as before; and that the grain producers were not accumulating stocks, but marketing everything, except their own requirements in grain, according to peace-time standards of consumption—if we make these assumptions, it appears from the above table that there should have been a considerable reduction of prices during the War, at least so far as certain kinds of cereals were concerned.

Such a conclusion becomes the more certain because the surpluses, calculated above<sup>4</sup> on the assumption that the producers retain only as much as is needed for their own consumption and for use as seed and other productive purposes, would figure in the market only against the visible demand, and not against the aggregate latent and visible consumption demand. The visible demand is of very small volume as compared with the total harvest of cereals and the amount consumed by the producers themselves. This signifies that the pressure upon the market, and upon prices, exerted by the cereal surpluses which we have computed would have been very great.

To afford merely an approximate idea of the proportion of "com-

<sup>3</sup> See Kondratev, *op. cit.*, pp. 44, 58. A computation of the surplus or shortage of cereals during the War was also prepared by the Special Council on Food Supply. On the whole, we consider the figures of M. Kondratev the most reliable.

<sup>4</sup> Surpluses over the total requirement of the country.



modity" grain, that which was intended for sale in the open market, to the gross harvest, we give the following figures of the volume of cereals conveyed by rail and water during the period 1909-1913:

TABLE 44

## QUANTITIES OF GRAIN CONVEYED BY RAIL AND WATER

<i>Kind of grain</i>	<i>Total yield (in puds)</i>	<i>Transported by rail and water (in puds) (percentage)</i>	
Food grain:	2,783,713,200	591,993,200	21.3
Rye	1,429,605,800	137,747,800	9.6
Wheat	1,354,107,400	454,245,400	33.5
Fodder grain:	1,635,403,900	377,339,600	23.1
Oats	964,720,900	189,618,800	19.7
Barley	670,683,000	187,720,800	28.0
Grits grain:	232,275,700	16,208,200	7.0
Miscellaneous:	196,134,800	65,917,200	33.6
Potatoes:	2,139,418,500	48,873,000	2.3
Total:	6,986,946,100	1,100,331,200	15.8

All "commodity" grain, it is true, does not reach the railways and waterways, but most of it does.

Bearing all these facts in mind, we can easily imagine the state of affairs in the grain market when it has a supply exceeding the demand by hundreds of millions of puds. It was just such a condition that M. Bloch, already mentioned above, and some agriculturists, conceived as bound to arise at the outbreak of war. They felt certain that the peasants would send to market every pound of grain in excess of their ordinary requirements, in other words, that potential supply would surely become effective supply. To us, however, all that has been stated above is only in the nature of surmise and a method of facilitating an analysis of the various factors in the movement of prices.

Thus far we have failed to consider two other factors: (1) the underestimated totals of the 1916 harvest, as a result of which we find the agricultural year 1916-1917 to be a deficit year, when, as a matter of fact, we are perfectly safe in saying that 1916, so far from being a deficit year (taking the aggregate of all grains), gave even a slight surplus, and (2) foreign exports. We have already learned that exports to foreign markets fell off considerably during the War. It is only for 1914 that the grain export seems impressive, but we must remember that nearly the entire volume for that year

was shipped during the first half, previous to the declaration of war. We may therefore assert that exports practically ceased during the years of the War, particularly if we take the net figures, that is to say, if we deduct imports from exports. The total of the net exports during the three years of the War is not larger than the underestimate of the grain harvest in 1916. We may, therefore, assume that the two factors mentioned above (underestimated harvests and net exports) offset and neutralized one another, and we are thus able to ignore them entirely in our further discussion.

We have so far considered grain in general. We must now discuss the various kinds and groups separately. At the same time we shall have to ascertain the influence that might have been exerted upon grain surpluses by the increase in consumption demand (latent and visible) above the rates of consumption observed in time of peace, if there was such an increase.

The total surplus of food grains during the three years of the War, assuming that the consumption demand was the same as before the War, reached the immense figure of 1,278,100,000 puds. This amounts to about 20 per cent of the total requirement of the country during the entire period, including grain for seed and other productive uses. But the demand for seed could not have increased, in view of the reduced area under crops. Moreover, the ordinary consumption demand of a considerable portion of city consumers (merchants, manufacturers, government officials, clerks, etc.) hardly tended to increase greatly above the peace-time consumption, as the latter had always been sufficiently provided for. And as regards other classes of the urban population (for instance, working people), an extension of their consumption demand beyond the limits of peace-time consumption might have been rendered difficult by an inadequate increase in their money earnings. No doubt, after one or two years of war, when so many non-cereal foodstuffs had become scarce, the cereal demand, if not actual consumption, of the urban population might have slightly increased.

Still, if we were to assume that the entire surplus of grain computed above was actually absorbed by an increased consumption demand and consumption, this could only have happened as a result mainly of an increase in the consumption demand (latent and visible) and consumption of the rural population. But relatively to the peace-time requirements of the latter, the surplus calculated above

would represent much more than 20 per cent (about 30 per cent). There is another consideration: It is to be assumed that the consumption demand of the rural population showed an appreciable increase only in those instances where there was ordinarily not enough grain available locally, and where it had to be supplemented by outside purchases in the second half of the agricultural year, with the result that there used to be formerly a great deal of economy in grain consumption. As for those localities that produced a surplus, we must assume that their needs in grain were fully satisfied, not to mention the fact that the increased consumption of meat, butter, milk, and sugar, might have worked against a further increase in the consumption of cereals. At any rate, it is difficult to believe that cereal consumption by the rural population rose by 30 per cent in the course of the War.

It follows from these considerations that the estimated surplus of cereals could not have been entirely absorbed by the increased consumption of the producers themselves (by reducing the potential supply), nor by an increase in the ordinary consumption demand of the consumers. The actual extent to which it was really absorbed is something we are unable to state. And, assuming that in fact it was not all absorbed, and that the effective supply and demand were regulated by the potential supply and the ordinary consumption demand, it follows that prices of food cereals were necessarily bound to fall during the War.

This will become even more obvious if, instead of taking the entire three-year period, we take each year of the War separately. As a matter of fact, the grain surplus in 1914–1915 was 22 per cent of the total requirement calculated on a peace-time basis, and more than 35 per cent in 1915–1916. If we exclude from our computations the seed grain, amounting to several hundred million puds a year, these percentages rise considerably. The only season that showed a very small surplus of food cereals was that of 1916–1917. Hence, until 1916–1917, even if we were to admit a heavier demand by the population, the grain market ought to have been in a state of complete stagnation, provided, of course, that the effective supply and demand were regulated by the potential supply and the ordinary consumption demand.

In studying conditions as they affected separate cereals, we have to note, first of all, the difference in the home consumption of rye



and wheat. Rye before the War went almost entirely to the home market. The production of rye exceeded the home consumption by only 3 per cent, and the foreign exports amounted to about 45 million puds.<sup>5</sup> The production of wheat, on the other hand, was 23 per cent above home consumption, with exports varying about 265 million puds. The per capita consumption of rye was 8.3 puds a year, while that of wheat was 6.6 puds (the corresponding figures for European Russia were 9.11 and 6.01).

The surpluses of food grains that we observed in 1914–1915 and 1915–1916 were overwhelmingly in wheat. Therefore, the movement of prices could not be the same for wheat and rye. In 1914–1915, the surplus of rye, assuming peace-time consumption, should not have pressed upon the market very hard, especially when we consider the possibility of increased consumption of this basic cereal. In the best event, therefore, the price of rye, when taken separately, might have remained on the peace-time level, or, in the worst case, advanced slightly above that level. The price of wheat, on the contrary, would have to drop appreciably.

The drop in the price of wheat, which plays the part of a substitute for rye in the domestic consumption in Russia, would bring wheat and rye prices close together (perhaps even make wheat cheaper than rye) and result in an extensive replacement of rye by wheat. This would then make rye cheaper and wheat a little dearer. Ultimately, it is to be assumed, the price of rye (at worst) would stay at the pre-war level, and the price of wheat would fall a great deal. But when we consider the fact that large amounts of food cereals remained in the country after the good harvests of 1912–1913 and 1913–1914, we may admit the necessity of a reduction in the prices of both kinds of grain, negligible in the case of rye, but heavy in the case of wheat. All investigators who have studied price movements during the War agree with our conclusion that it would be inevitable, normally, for the price of wheat to decline during the first year of the War.<sup>6</sup> As regards rye, however, there is no such unanimity of views.

<sup>5</sup> These data and the following are the averages for 1909–1913 for the empire as a whole.

<sup>6</sup> See article by M. Lipkin in *Trudi Kommissii po Izuchenyu Sovremennoi Dorogovizni*, issue I, p. 299; M. Grohman comes to the conclusion that “the surplus of wheat was so large that one did not know what to do with it” (*ibid.*, p. 351).

In 1915–1916, with considerable surpluses in both kinds of grain, prices should have dropped below those of 1914–1915; for wheat this would imply a further reduction in price, and as regards rye, assuming that it had not dropped in 1914–1915, this would have been the original decline in price. Naturally, had prices in 1914–1915 been formed under the influence of the ratio between potential supply and ordinary consumption demand, that is, had they differed vastly from the prices actually prevailing, then the production of food grains in 1915–1916, likewise, would have been different from what it really was. In other words, if we assume that prices are governed by the ratio of potential supply to ordinary consumption demand, we cannot base our calculations upon volume of production, which came about under the influence of other prices than those actually existing. However, we feel justified in advancing this conclusion: prices in 1915–1916, broadly speaking, should have been lower than prices in 1914–1915.

As regards 1916–1917, market conditions should have changed considerably. The pressure upon the market exerted by the rye and wheat surpluses should certainly have slackened. Especially for wheat, where there was a serious crop deficit, we should have seen a period of recovery of price, tending to a restoration of the peacetime ratio between the price of wheat and rye. In any event, both cereals should have risen in price above the level of 1915–1916, perhaps even above that of 1914–1915.

The result of all these circumstances would have been an extremely favorable situation for the urban population during the first two years of the War, permitting them to reduce their expenditure on cereals. The peasantry, on the other hand, would have suffered a great deal, and their earnings would have shrunk: the only compensation in their case would have been the government allowances for soldiers' families, increased wages, and the elimination of expenditure on liquor.

The situation of fodder grains was somewhat different from that described above. Their surpluses, when we treat oats and barley as a single cereal, assuming them to be interchangeable, were very slight, and such surplus as there was, was mostly in barley. Oats were scarce throughout the period of the War. Hence, even if their effective supply were regulated by the potential supply, and if the effective demand were regulated by the ordinary consumption demand, we

should observe a rise in the price of oats. This rise might have been moderated by a surplus of barley, but, because of the nature of oats and the actual impossibility of replacing them completely by barley, as well as because oats were almost exclusively used within the country (so that the cessation of foreign export could not have any appreciable effect upon the supply), the price of oats should have risen, while barley would be affected quite differently. The barley surpluses were larger than shown in Table 43, since barley could not in practice replace oats entirely. Therefore this surplus, when placed against the need in barley alone, and not against the combined need in barley and oats, would inevitably result in a decline in the price of barley. In the extreme case, granting the very unlikely possibility of an increased barley consumption by producers themselves, in view of the larger conversion of this cereal into grits, we may admit the possibility of the price of barley remaining in 1914-1915 at the pre-war level. But in 1915-1916 the price of barley would necessarily fall. However, no matter what view we take of the movement of barley prices in 1914-1915 and 1915-1916, there can be no doubt that in 1916-1917 this cereal would also have been overwhelmed by the tide of rising prices.

Lastly, the grits cereals, and more particularly, buckwheat, would unquestionably have advanced very strongly in price. In the first place, the consumption and the consumption demand are more elastic in the case of grits than of the whole grain, and in the course of the War the latent demand for grits grain might rise considerably; the same might happen as regards the visible demand. In the second place, there was a crop failure in grits grains in 1914-1915, resulting in a large deficit, even as compared with pre-war rates of consumption. It is therefore perfectly logical to assume an inevitable advance of prices in 1914-1915. This movement might have ceased, or even been reversed, during 1915-1916; but after that the prices would have to advance again.

Summing up all that we have stated here regarding the cereal situation, we obtain the following picture:

At any given moment during the first two years of the War, assuming that effective supply is governed by potential supply, and effective demand by ordinary consumption demand, we find that the prices of only buckwheat grits, millet, and oats need have advanced (ignoring the question of the rate of advance). As for wheat, rye,



and barley, it is hard to discover any such necessity. In wheat, with the allowances we have made, a strong decline was undoubtedly to be expected, both during 1914–1915 and 1915–1916, and rye and barley prices might only in the extreme event have maintained themselves at the pre-war level in 1914–1915 (but we think it more correct to suppose that they were bound to decline). In 1915–1916, at all events, a drop in the prices of rye and barley should have been unavoidable.

At any rate, taking the prices in 1914–1915 as they actually were, and considering the allowances we have made as regards the volume of supply and demand, we are forced to concede that the prices of rye, wheat, and barley should have declined in 1915–1916. They could not in that year be higher than those of 1914–1915 (with the allowances made), regardless of what factors might in fact have determined the latter. In 1916–1917 the increase in the prices of oats and grits would have continued. But the food grains and barley would have had a period of price recovery, especially rapid in wheat and barley.

All this, no doubt, is mere conjecture. We feel, however, that there is in it a considerable amount of probability. In any case, even if all our calculations of cereal surpluses (especially of food cereals) were to be shown to be too optimistic, it would still be impossible for us to discover—working upon the assumption that price is based upon the ratio between potential supply and ordinary consumption demand—an explanation for the rise in the prices of food grains and barley during the first two years of the War, and this is beyond any doubt so far as wheat is concerned.

#### *Hypothetical Conclusions and Actual Price Movements.*

The actual situation in the price movement of cereals as set forth above in Chapters III and IV agrees only in part with the hypothetical conclusions at which we have arrived here, so far as grits and oats are concerned. The price movements of rye, barley, and, especially, wheat differ fundamentally from our suppositions, for they show a considerable rise instead of a drop. There are only two points on which there is a mere hint that the situation was as here surmised: (1) The rise of rye prices was greater than that of wheat prices, and oats rose more considerably than barley. Thus

the difference in the rye and wheat prices was reduced (wheat being usually priced higher than rye), but this reduction took place because of an unequal rise in the prices, and not on the basis of an unequal drop in the prices of the two cereals, nor on the basis of a drop of one cereal and stability in the price of the other, as we have to assume when we base our calculations upon the ratio between the potential supply and ordinary consumption demand. The increase in the difference between the oats and barley prices (oats being, as a rule, priced higher than barley) took place, not because of an opposite movement in the prices of the two cereals, nor on the basis of rising prices for one cereal and stable prices for the other, but on the basis of an unequal rise in their prices; (2) during the first half-year of the War we observe some lowering of wheat and barley prices. The harvest of 1915-1916, likewise, leads to a considerable decline in the prices of wheat, barley, rye, oats, millet, and, partly, buckwheat grits. But this decline in price does not last, does not go beyond the limits of the usual autumn reductions, and is soon canceled by feverish upward movements.

All these facts must lead us to the conclusion that cereal prices during the War were not determined exclusively by the ratio between potential supply and ordinary consumption demand. In other words, we are forced to conclude that the effective supply and demand in the market, which, in the last resort, are the factors that govern prices, did not coincide with potential supply and ordinary consumption demand. Evidently the ratio between effective demand and supply must have been more unfavorable to demand than might be supposed, having regard to the potential supply and ordinary consumption demand.

Regarding the cause of the divergence between the two sets of demand and supply we may assume the following: In the first place, the effective supply may have been less than the potential supply because producers withheld from the market more grain than they needed for their own consumption; in the second place, the effective demand may have been higher than the visible ordinary consumption demand, even if we reckon with its possible increase, either because there may have appeared an extraordinary consumption demand, owing to hoarding by consumers, or because of a speculative demand by middlemen who were buying on a large scale and refraining from selling to consumers for some time; in the third place, all

these conditions may have been present simultaneously. But if the movement of prices of certain grain products can be explained only by the presence of these conditions, it means that the same conditions must have had great influence on the price of other grain products, of which there were no large surpluses, or no surpluses at all, and where the rise in price was natural, especially when we reflect that hoarding by producers and speculation by middlemen are easier in the case of goods that are scarce (relatively to the demand) than in the case of goods that are abundant.

Therefore, the conditions mentioned above caused apparently not only a considerable rise in the price of grains which ought to have declined in price had the price been governed by the ratio between potential supply and ordinary consumption demand, but they likewise contributed to a further rise in the price of those cereals which would have become dearer even if these conditions had not been in existence.

#### *Meat Prices.*

Taking into consideration all that has been stated previously with reference to the Russian meat market, the immense demand for meat by the army, and the increase in the producers' latent demand for this commodity, it seems inevitable that meat should become dearer in the course of the War. Of course, it might have been possible to expand meat production by selling and slaughtering cattle belonging to the basic resources of the country. This, however, could have been done only by raising the prices paid to the farmer for his cattle, as well as for meat; and then, as the destruction of the stock went on, there would necessarily have followed a very natural reaction against this slaughter, and a desire to preserve the stock as much as possible.

During the first year and a half of the War, several different causes militated against a rapid advance of meat prices. First, the army during this period had not yet reached its maximum size; second, as there was a plentiful supply of cattle available in Poland and Galicia, meat purchases for the army were not quite as extensive as they might otherwise have been in the interior of the country; and, in the third place, at the outbreak of the War, the Army Supply Department had large supplies of canned and salted meat in store. All these circumstances tended to relieve the pressure of



the army upon the cattle resources of the interior, during the first year and a half. It was only in April, 1915, that the first extensive purchasing operations on behalf of the army were started in the cattle markets of the interior.

On the other hand, again, there were certain conditions favoring an intensified supply of cattle in the market. We are of opinion that the failure of the forage crops in many sections of the country in 1914-1915 encouraged the selling and killing of much live stock for meat. There can be no doubt that it did so in the northern regions. We believe that the same circumstances explain the reduction in meat prices in the autumn of 1914.

In 1916, however, there was a radical change in the meat situation. The immensely expanded army, consuming something like 40 million puds of meat per annum, found itself dependent exclusively upon the interior markets. The army demanded more cattle than were reaching the markets of the whole country. In other words, if the ordinary requirements of the cities and the heavier consumption of the peasants themselves were to be satisfied, it could be done only at the expense of the basic live stock of the country.

In spite of all measures that were taken to reduce the meat consumption in the army and among civilians, there was an inevitable and rapid rise in prices. This was the situation actually observed in 1916. It is not surprising that meat prices should have increased during the War, and particularly in 1916. The only puzzling feature is that the rise in meat prices should have lagged behind the rise in grain prices during the first year of the War. Probably cattle and meat do not lend themselves to speculative trading so well as grain. Moreover, in the case of meat, certain peculiar factors that affected the prices of grain were apparently lacking.

#### *Butter Prices.*

Was there enough butter to satisfy the consumption demand, assuming that the producers and the Russian consumers did not increase their demand, both latent and visible? To obtain a definite answer to this question, we must, first of all, deduct foreign exports from the total amount of Russian butter offered for sale and add foreign imports. This will give the following quantities of butter available in Russia:

## SUPPLY OF BUTTER

<i>Year</i>	<i>(in puds)</i>
1914	5,383,000
1915	5,057,000
1916	6,913,000

The total butter requirement of the empire was estimated at 4,362,000 puds per annum, and if Poland is eliminated, at 4,112,000 puds. It will thus appear that the available supply of marketable butter exceeded the ordinary consumption approximately by the following figures:

EXCESS OF SUPPLY OF BUTTER OVER  
ORDINARY CONSUMPTION

<i>Year</i>	<i>(in puds)</i>
1914	1,271,000
1915	945,000
1916	2,801,000

When we allow for the needs of the army, we must admit that, upon the whole, there was enough butter available in Russia during the first two and a half years of the War to satisfy all normal requirements of the nation and army. In 1914–1915, there were bought for the latter 1,227,000 puds, fully covered by the surplus left over from 1914; and in 1915–1916 the purchases amounted to 1,905,000 puds instead of the intended 2,500,000; accordingly, a considerable amount should have remained available for 1916–1917.

The conclusion seems warranted from these facts that there were in Russia during the first two and a half years of the War neither large surpluses nor large deficits in the supply of butter. Consequently prices ought to have been steady. Since our estimate of the butter production in the course of the War was not optimistic (on the contrary, it was a cautious estimate, especially in respect of Siberia for 1914), we find here no ground for anticipating a rise in price, at least until the close of 1916. But we have disregarded the fact that the producers themselves may have consumed more butter and that the urban population, too, may have increased their demand. Thus, we find the following statement made regarding the butter situation in 1916:

A great demand for butter was experienced. Besides the circumstances that formerly exerted their influence upon the demand (the needs of the hospitals, army, etc.), an increased demand was also caused by the scarcity of other foodstuffs, which rapidly became dearer than milk and butter; likewise by the inauguration of meatless days, resulting in a heavy increase in milk consumption, both in town and country.<sup>7</sup>

In regard to the increase in the latent demand of the producers themselves, we should bear in mind that in those areas where butter was produced for the market this demand could not increase to any large extent, since it was already fully covered. But where the marketing of the butter was only of secondary importance in the establishment of the peasant, it might happen that increased home consumption would appreciably reduce the quantity offered on the market. This would be the situation in provinces that marketed only a few thousand puds a year. It is therefore possible that the market supply of butter in European Russia fell a great deal below that which we have assumed. To ascertain the facts reliably by means of exact figures is not now possible. Only when we possess for the war period such accurate data on the transport of butter as we had in peace-time, shall we be able to throw more light upon this question.

When we take into account the latent demand of the producers and the visible demand of the consumers, we may have to admit that some advance in the price of butter was inevitable during the first two and a half years of the War. But it is impossible to explain why butter should have advanced in price so enormously between the autumn of 1915 and the end of 1916 that it stood, in December, 1916, at 410 per cent of its pre-war price. It cannot, having regard to the nature of the commodity, have been due to any large extent to the withholding of supplies by producers or to hoarding by consumers. One is therefore driven to the conclusion that it was due either to some peculiar tactics of the middlemen or to some other, still more powerful, causes.

#### *Sugar Prices.*

Deducting the exports and adding the imports of sugar, in each season, we obtain the following quantities as the total available for the whole country: 1914-1915, 120,920,000 puds; 1915-1916,

<sup>7</sup> See *Narodnoe Khozyaistvo v 1916 Godu*, issue V-VI, p. 83.



113,450,000 puds; as for 1916–1917, we shall not consider it at this stage. The ordinary demand for sugar was as follows:

TABLE 45  
CONSUMPTION OF SUGAR

<i>Year</i>	<i>Sold in the home market</i>	
	<i>Total (in puds)</i>	<i>Per head of population (in pounds)</i>
1909–1910	71,390,000	17.8
1910–1911	72,819,000	17.8
1911–1912	73,911,000	17.6
1912–1913	82,574,000	19.3
Annual average for 1909–1913	76,435,000	18.2

In 1913–1914 there were sold about 84.5 million puds; in 1914–1915, 94.6 million puds, and in 1915–1916, 102.9 million puds. In this connection it should be borne in mind that the enemy occupied in the spring and summer of 1915 an immense stretch of territory, with a population of about 18 millions, so that the population of the remaining part of Russia in that year (including refugees from the occupied and threatened areas) was only about the same as the average of 1910–1913. Nevertheless the consumption of sugar had increased vastly, amounting already to 24.4 pounds per head, or 34 per cent more than the average consumption during the period 1910–1913 (during 1914–1915 it was about 21 pounds). Excluding the army, we find that the rest of the nation consumed 23.8 pounds of sugar per head in 1915–1916.

Naturally, this situation could not continue indefinitely. The total stock of sugar available in 1916–1917, amounting to about 93 million puds, would not permit requirements to be satisfied to the same extent as in 1915–1916. Hence, in the second half of 1916, the Government finally took charge of the entire sugar market. Consumption was regulated; sugar at the refineries was strictly accounted for, and its distribution was begun in accordance with a definite plan, or schedule. In other words, the free play of supply and demand was stopped. For the purposes of the present study this new era of control naturally loses a great deal of interest, seeing that the natural factors that determine prices are now eliminated.

From the above statements concerning the sugar situation, the following conclusion appears warranted: If we consider merely the ratio between potential supply and consumption demand, there was no reason for any increase of price during the first two years of the War. This is unquestionably true in regard to the first year of the War. For in that year, with an available supply of 101 million puds<sup>8</sup> which had been set aside in 1914–1915 for sale, the actual sales amounted to only about 95 million puds, so that, had the entire supply gone to market, it would undoubtedly have exceeded the demand. And in 1915–1916 there was no scarcity of sugar. There was, therefore, no ground in 1914–1915 for raising the price of sugar. On the contrary, we might rather think that the price should have been reduced. And as regards 1915–1916, the situation was probably the same.

However, as the reader is already aware, the actual situation in the movement of sugar prices was not in accord with our calculations: the price kept rising, though not at a rapid rate, comparatively speaking. This shows that in this instance, again, price movements were not governed by the relation of potential supply to consumption demand, so that we are forced to admit the effect of some other factors, causing either a divergence between the effective demand and consumption demand, or between effective and potential supply, or perhaps both divergences simultaneously.

<sup>8</sup> In Russia, a special system of regulating the sugar market had existed even previous to the War. Among other things, the Council of Ministers, acting upon the recommendation of the Minister of Finance, determined each year the amount of sugar to be released for sale in the home market.

## CHAPTER VIII

### OTHER FACTORS THAT DETERMINED PRICES

#### *Attitude of the Producers.*

It now remains to inquire whether there were observed, during the War, such phenomena as would indicate, on the one hand, that the effective supply (supply which actually appeared in the market) tended to sink below the potential supply (in existing circumstances of production and stocks in hand) and, on the other, that the effective demand tended to exceed the ordinary consumption demand. Essentially, therefore, the whole question reduces itself to these elements: (a) the refusal of the producers to sell their surpluses, and their desire to hoard their stocks; (b) the existence of an increased consumption demand, with the object of forming exceptionally large reserves of foodstuffs, that is, of an extraordinary consumption demand; and (c) the existence of what is usually referred to as speculation, or profiteering, that is, heavy buying by middlemen, with a simultaneous reduction of the offer of such products to the consumers. We cite here several instances tending to show that the refusal of producers to sell their goods was widespread during the War.

The official publication of the Special Council on Food Supply gave the following description of general conditions in the foodstuffs market toward the close of 1915 and at the beginning of 1916:

Referring to the causes responsible for the rise in prices, the records of the local councils on food supply contain practically nothing to show that this rise was due anywhere to the scarcity of this or that particular commodity. On the contrary, there are frequently indications of a good harvest and that the peasants, expecting a further rise of prices, are refraining from offering produce for sale.<sup>1</sup>

Again, we read: "Holders of food supplies refrain from selling them."<sup>2</sup> Elsewhere, again: "The abundance of money among the

<sup>1</sup> *Obzor Deyatelnosti Osobago Soveshchanya po Prodovolstvu*, p. 62.

<sup>2</sup> *Dopolnenie (Supplement) to Obzor Deyatelnosti Osobago Soveshchanya po Prodovolstvu*, p. 5.



population and, in this connection, the extreme reserve in offering produce for sale. . . ."<sup>3</sup>

But these conditions were observed not only during the second year of the War; in 1914–1915 a similar situation was noted. Thus we read:

Possessing sufficient cash resources, the peasants were in no hurry to offer their grain in the market, but waited for better prices. In these conditions, and contrary to all expectations, the harvest was, upon the whole, sold with great profit to the producers, with the exception of such as, for one reason or another, found themselves compelled to dispose of their stocks at the very outset, after the declaration of war.<sup>4</sup>

Similarly for the period 1915–1916, we are in a position to adduce some striking evidence. Thus, the Orenburg provincial council on food supply stated on December 8, 1915, that it would be necessary to find out exactly how much grain there was in the possession of the peasants and private landowners.

In connection with this problem, the council discussed the steady rise in grain prices that had been noted in this province. The phenomenon was admitted to be normal, being ascribed to the heavy demand for cereals, the abundance of ready cash among the farmers as a result of the stoppage of the Government sale of liquor, and to the higher cost of harvesting. . . . The representatives of the flour manufacturers declared that, in spite of the good harvest of 1915, grain was being delivered at the Orenburg market in a far smaller quantity than formerly. This phenomenon attracts special attention because the price of wheat remains firm, yet the transport of this article to the Orenburg market has shrunk from the 2,000 to 3,000 cart-loads of previous times to only 400 to 800 at present.<sup>5</sup>

In another part of the Orenburg commissioner's report we read:

<sup>3</sup> *Kratkie Predvaritelnie Otcheti, Svedenya po Zagotovke Ministerstvom Zemledelya Khleba iz Urozhaya 1915 Goda* (Brief Preliminary Reports, Grain Purchases of the Ministry of Agriculture from the Harvest of 1915), Petrograd, 1916, p. 3.

<sup>4</sup> *O Vliyanií Voini na Nekotorya Storoni Ekonomicheskoi Zhizni Rossii* (Influence of the War upon Certain Aspects of the Economic Life of Russia), published by the Ministry of Finance in 1916; quoted in Prokopovich, *op. cit.*, pp. 136 sqq.

<sup>5</sup> *Svedenya o Polozhenii Prodovalstvennago Dela v Petrograde, Moskve, i Drugikh Mestnostyakh Imperii na 29 Yanvarya 1916 Goda*, No. 18, p. 16.

To this we must add the increased supply of money among the population, which makes them delay the sale of their farming produce, postponing it to a more favorable moment, that is to say until higher prices prevail. To explain the increase in the prices of live stock and meat solely by profiteering is impossible, because cattle are kept from market not by speculators, but by the owners themselves, who reckon with the state of the meat market not only at the present moment, but also as it may develop later.<sup>6</sup>

Regarding the province of Nizhni-Novgorod the commissioner reported:

Difficulties in the supply of cereals for the population are experienced even by those cities which are situated in farming areas, and this is explained by the fact that the peasants sell their grain reluctantly, having no want of money and waiting for higher prices. Thus, in the district of Knyagin, the grain of the peasantry has been left unthreshed for several years past.<sup>7</sup>

From Ryazan province came the following report: "The peasants were not in a hurry to sell their grain, awaiting a further increase of price, since good earnings have made it possible for them to satisfy the needs of their households and pay their debts and taxes."<sup>8</sup> Saratov province noted "a slack supply of grain by the peasants, thanks to the increased prosperity of the rural districts."<sup>9</sup>

Of the situation in Kharkov province, the records of the local council on food supply furnish this description: "As regards the peasants, they are withholding their grain. The peasants now possess much money, spending nothing on liquor; labor is well remunerated, and peasants are not obliged to sell."<sup>10</sup>

Speaking of the live-stock industry, M. Melnikov, commissioner for the province of Kazan, wrote as follows in the autumn of 1916:

As soon as it became a source of some income, what happened? The entire peasant population of Russia, all the farmers and landowners, commenced to save their cattle to a large extent. The situation now

<sup>6</sup> *Ibid.*, p. 19.

<sup>7</sup> *Ibid.*, p. 20.

<sup>8</sup> 1915 *God v Selsko-khozyaistvennom Otnoshenii* (*The Year 1915 from the Point of View of Agriculture*), p. 6.

<sup>9</sup> *Izvestia Osobago Soveshchaniya po Prodovolstvu*, No. 21, p. 29.

<sup>10</sup> *Materyali po Voprosu ob Ustanovlenii Tverdikh Tsen na Khlebnykh Produktakh do Urozhaya 1917 Goda*, Part II, p. 246.

is that cattle are being preserved in provinces in which they were formerly killed.<sup>11</sup>

Reports of a similar character were received from the provinces of Perm, Vyatka, Ufa, Ekaterinoslav, and others. It seems to us that the above evidence is sufficient to give a fair idea of the wide prevalence of what was then known as "the reserved attitude of producers."

These tactics of withholding supplies from the market were followed not only by the peasants and landlords, but by sugar and flour manufacturers as well. Here follow several reports of conditions in the sugar industry:

The commissioner of Ufa, complaining to the Special Council that he found it difficult, almost impossible, to obtain sugar from the refineries on the terms prescribed by the Government, reported: "The sugar refiners, organized in a syndicate whose membership consists of 222 manufacturers, . . . have proved stronger than all official regulations and, owing to their efficient organization, find no difficulty in violating all rules and ordinances."

A report from Kazan reads: "The sugar factories want to obtain higher prices. No sugar is being shipped from the factories. It can be had only through the medium of third parties secretly operating for the factories." From Astrakhan province it was reported: "The sugar factories refuse to sell sugar at the prices fixed by the Minister of Agriculture, in his order of October 9, 1915." The commissioner for Vyatka wrote: "Sugar can be obtained mainly through the intervention of the banks, at a price . . . higher than that prescribed by the Special Council." The Orenburg commissioner reported: "The factories sell sugar at regulated prices reluctantly, avoiding sale under various pretexts."<sup>12</sup>

These examples are sufficient to show what conditions were at that time in the sugar industry. There were similar complaints from the flour millers.<sup>13</sup>

Consumers, likewise, acquired during the War the general habit

<sup>11</sup> *Ibid.*, Part III, p. 116.

<sup>12</sup> See *Obshchaya Soobrazheniya o Prichinakh Sovremennoi Dorogovizni*, pp. 54-55.

<sup>13</sup> A significant instance will be found in *Obzor Sostoyaniya Transporta i Rinkov* (*Survey of Transportation and Markets*), published by the Union of Towns, Petrograd, 1916, issue X, p. 30.



of accumulating supplies of foodstuffs for long periods ahead. During the first year of the War this was not so noticeable, but in the course of the second year the habit had become practically universal. At first the public hoarded products that rapidly increased in price, such as grits; later they began to store supplies of sugar, finer grades of flour, and other foodstuffs. In 1917 the public lost their heads entirely, and ransacked stores and markets to buy supplies for hoarding. This was particularly noticeable in the larger cities, but it could be seen throughout the country. Here are some instances.

The municipal council of Tiflis described as follows the situation prevailing in that city about the middle of 1915:

The absence of large stocks of supplies in the city, coupled with the irregular deliveries of other supplies, has resulted in a further dwindling of stocks in hand; foreseeing such a condition, some dealers concealed their merchandise and screwed up prices when they found themselves in control of the market situation. Then the average citizen proceeded to hoard supplies at his home and paid excessive prices, competing with other customers.<sup>14</sup>

The commissioner of Tomsk reported as follows in March, 1916: "The present scarcity of flour is to be explained also by the fact that the population of this city and of the neighboring villages, afraid of being left entirely without flour, endeavor to hoard as much as possible. The same thing has been observed in the case of sugar."<sup>15</sup>

We thus see that even in far-away Siberia, just as in the south, the same phenomenon, so well known to every city dweller in European Russia, was observed. The official publication of the Special Council<sup>16</sup> describes these conditions as follows:

The not altogether unfounded fear that it will not always be possible to obtain a certain article prompts heavy buying. Consumers who can afford to accumulate reserve stocks are thronging the stores and shops, rushing back and forth to fill their larders. The long lines waiting outside not only fail to discourage such buyers, but on the contrary, act

<sup>14</sup> See *Anketa o Dorogovizne (Investigation of the High Cost of Living)*, published by Union of Towns, Moscow, 1915, p. 43.

<sup>15</sup> *Izvestia Osobago Soveshchanya po Prodovolstvu*, No. 25-26, p. 13.

<sup>16</sup> *Ibid.*, No. 27, p. 107.

as an additional stimulant to all who are anxious to avoid interminable waiting in the future.

What is generally referred to as speculation unquestionably flourished during the War. Without going into an analysis of this term, we shall merely state that we propose to denote by it, in the pages that follow, the effort of the middlemen to buy up more commodities than they used to sell to the consumers normally, in the expectation of either increased demand at some future date or a reduction of the available supply, to be accompanied by a rise in prices. Since the purchasing was done in the expectation, at a future date, of a certain more or less probable development which was slow in coming, it was necessary, of course, to abstain at the same time from selling the accumulated stores to consumers. The only purchasers under these circumstances were other middlemen who reckoned with similar developments in the future and for this reason were prepared at the given moment to purchase these goods from their fellow-middlemen, with a corresponding rise in price. Naturally, such speculation can exist only so long as there remains a hope of an increased consumption demand or reduced effective supply.

The question whether middlemen purchased foodstuffs extensively during the War, and thus interfered with the regularity of supplies to the market, may be answered by the following reports of food supply commissioners, relating to the close of 1915, after a good harvest:

In the Ural territory it was noted that "many products that are abundant in this territory are dear, which is attributed by the local food supply council largely to speculation."<sup>17</sup> The province of Kherson, one of the richest grain provinces of the empire, was suffering from high prices. "According to the report of the Governor of Kherson, December 12, 1915, a meeting of his council held on November 30 recognized that there was absolutely no justification for the high prices noted in his province, and that they are of a plainly speculative nature."<sup>18</sup>

The province of Kostroma, while reporting sufficient supplies, complains of high prices: "All points to the fact that the flour-millers and merchants, here as elsewhere, have taken advantage of

<sup>17</sup> *Obshchaya Soobrazheniya o Prichinakh Dorogovizni*, p. 52.

<sup>18</sup> *Ibid.*, p. 53.

existing conditions to derive the largest possible amount of profit from the sale of their stocks of goods.”<sup>19</sup>

From the Don territory came the following information regarding the latter half of 1915:

The municipal council of Rostov, at a meeting on July 17, 1915, arrived at the conclusion that “the increase in the prices of many articles and commodities of prime necessity in the City of Rostov has been caused artificially by the purely speculative activities of the local merchants and of private banks.”

On November 29, 1915, the Council on Food Supply attributed the rise in wheat prices on the Rostov and Taganrog exchanges not only to transport difficulties, but also to speculation, that is, “the withholding of the stocks of wheat in hand, in the expectation of advancing prices.”<sup>20</sup> The Saratov commissioner likewise points to speculation by middlemen as one of the causes responsible for the rising food prices, since foodstuffs were available in that province, “not only in sufficient quantities, but even in excess.”<sup>21</sup>

The province of Yaroslav reported in November, 1915, that “at Ribinsk, and to a smaller extent at Yaroslav, on the banks of the Kotorosl River, there were considerable grain cargoes, but dealers demand exorbitant prices, or refuse to sell altogether, while there is at the same time a dearth of seed.”<sup>22</sup>

There are certain complaints also in reports from the commissioners of the province of Kiev, Turgay, and Semipalatinsk territories, the provinces of Orenburg, Kursk,<sup>23</sup> and others.

Speculation by middlemen was not confined to the period 1915–1916. It existed even during the first year of the War and powerfully affected prices at that time. At a conference of the army commissioners for the purchase of grain, on February 3–5, 1915, when it was decided that additional forage grain would be needed, the commissioners called attention to the shrinking supplies of cereals offered for sale in the market. It was then found that in most cases the stocks were finding their way from the producers to the grain

<sup>19</sup> *Ibid.*, p. 53.

<sup>20</sup> *Svedeniya o Polozhenii Prodoovolstvennago Dela*, No. 18, pp. 24, 28.

<sup>21</sup> *Izvestia Osobago Soveshchanya po Prodoovolstvu*, No. 21, p. 27.

<sup>22</sup> *Ibid.*, No. 21, p. 35.

<sup>23</sup> *Ibid.*, No. 21, pp. 43, 46; No. 25–26, pp. 14–15; also *Obshchaya Soobrazheniya o Prichinakh Sovremennoi Dorogovizni*, p. 53.



dealers, and the latter were retaining these stocks in the hope that, after the War, there might be an enormous demand for them in the world market, with extraordinary prices. As far as oats were concerned, there was extensive speculation through the instrumentality of the banks, which granted loans to the speculative buyers.<sup>24</sup>

*The Part Played by the Banks.*

The question of the banks' share in the game of price-raising during the War, and of their subsidies to speculators, should be considered here. It is well known that many of the largest banks in Russia financed the food dealers during the War. Thus, in the grain trade, the following banking institutions were interested: the Petrograd International Bank, the Russian Bank for Foreign Trade, the Azov-Don Bank, the Russian Commercial and Industrial Bank, the Siberian Bank, the Volga-Kama Bank, and others. In the sugar business, the following were interested: the Russian Bank for Foreign Trade, the International Bank, the United Bank, and others. The Siberian Commercial Bank was interested in the meat business.

A careful study made by Professor Haensel of the rôle of the banks in commodity speculation during the first year of the War led him to the following conclusions:

It is fully established that those accounts which were concerned specifically with speculation in commodities greatly increased during the War, showing a far larger balance than during the corresponding months previous to the War. I have in mind the special current accounts secured by merchandise and merchandise documents, also the loans granted on the security of such merchandise and documents, as well as the credit balances of correspondents, representing proceeds of loans secured by merchandise and such documents. [Between October 1, 1914, and April 1, 1915, all these accounts increased from 296.3 million rubles to 398.6 million.]<sup>25</sup>

According to the figures given by M. Prokopovich, the total of such accounts during the War was (for the month of August in each year): 1913, 278.9 million rubles; and 1914, 297.2 million rubles; 1915, 364 million rubles; and 1916, 593.5 million rubles.<sup>26</sup>

<sup>24</sup> *Trudi Kommissii po Izuchenyu Sovremennoi Dorogovizni*, issue III, p. 137.

<sup>25</sup> *Ibid.*, issue III, p. 254.

<sup>26</sup> Prokopovich, *op. cit.*, pp. 173-174.

We have also the figures of the balances of loans (for a specified time or at call) granted on goods and documents on the first of January of each year: 1913, 228.7 million rubles; 1914, 319 million rubles; 1915, 297.6 million rubles; 1916, 435.6 million rubles; 1917, 627 million rubles.<sup>27</sup> We must also point out here that loans on merchandise had a tendency to be transformed into a peculiar form of advance crediting. Thus we read:

The substance of this operation is as follows: the wholesale dealer deposits with the bank not more than 20 per cent of the value of the merchandise; the bank then orders the required merchandise for its own account and in its own name, stores the goods upon receipt in its own warehouses, and lets the merchant take the goods piecemeal, according to his ability to redeem them. By this process the merchants, while able to order large quantities of merchandise, at the same time guarantee themselves against continued increases of price. Consequently, in this operation, the granting of a loan by the bank comes before the actual purchasing and selling operation, instead of after it, as in the case of ordinary loans on goods.<sup>28</sup>

The effects of such loans in advance upon the commodity market are too obvious to require further explanation or comment. In judging the effects of increasing bank credits like these upon the condition of the market, we have to bear in mind the rise in the price of the goods as well as the reduction brought about in the volume of circulation of such goods.

However, it is not possible to establish definitely the extent to which the banks financed the trade in foodstuffs during the War. It is also hard to ascertain the extent of the commercial operations of the banks themselves, for they carefully concealed many such operations by entering them in their books under perfectly legitimate headings. On this subject, the Petrograd Treasury Board reported in 1916 as follows:

In the inflation of prices of essential commodities, a very harmful influence is exerted by the activities of the banks; they are buying up goods that do not easily perish, store them in their warehouses, and then release them to the market in small lots at high prices. Although the law prohibits the banks from engaging in commercial transactions

<sup>27</sup> *Narodnoe Khozyaistvo v 1916 Godu*, issue VII, p. 189, on the total balances of joint-stock banking corporations; also issue II, pp. 42-43.

<sup>28</sup> Prokopovich, *op. cit.*, p. 174.

involving merchandise, they maintain special agents, on salary as well as commission, in various localities, and these agents buy goods with the funds of the banks. To conceal this business, which is harmful to the interests of the State, particularly at such a moment, these banks keep their books so as not to show that goods have been obtained with their own funds: instead, they keep special clients' accounts for this purpose. In these accounts, it is not purchases that are entered on the books, but the receipt of goods as security for loans. The result is that the grain market is now entirely under the control of the banks.<sup>29</sup>

Even without facts like these we could scarcely doubt the vast influence exerted upon the Russian grain market during the War by bank financing. As a matter of fact, the influence of the banks upon the grain market had been important even before the War, and we have no cause to believe that it was weakened during the War, especially when we consider the enormous increase in deposits.

M. Jurowski gives the figures for bank loans on grain for the period 1899-1901, showing them to have been, on the average, 223.7 million rubles a year, or 74 per cent of the total value of all the grain exported abroad.<sup>30</sup> The lion's share in these loans belonged to private banks. But as he accounts for only 22 of the most important banks, we may assume that this kind of credit was being granted for almost the whole value of the exports, not to mention credit on notes. Jurowski describes in great detail the process of the gradual assumption by the banks of the functions of grain merchants. At first, the banks granted credits; afterward they sought actively to become exporters, find purchasers, and so forth. Another authority on the grain trade, M. Lyashchenko,<sup>31</sup> has also noted the steadily increasing importance of bank capital in the grain trade.

With the cessation of exports, it would have seemed logical for these banks to turn their attention to the home market. Considering the enormous flow of deposits to the banks, they might have been expected to participate at least to the same extent as before, if not on a larger scale, in the grain business. And in view of the narrower

<sup>29</sup> *Obzor Sostoyaniya Transporta i Rynkov*, issue VI, p. 45.

<sup>30</sup> Jurowski, *Der russische Getreideexport*, Stuttgart and Berlin, 1910.

<sup>31</sup> Lyashchenko, *Khlebnaya Torgovlya na Vnutrennikh Rinkakh Evropeiskoi Rossii* (*Grain Trade in the Home Markets of European Russia*), Petrograd, 1912, pp. 5, 6, 608-612.



limits of the home market, this participation should have been of greater importance. In actual fact, however, the figures do not appear to confirm these expectations, even though local reports speak very frequently of banks having a part in the speculative trading in grain products. The official data communicated by the banks to the Ministry of Finance concerning credits granted on grain between January 1, 1913, and April 1, 1915, show a *dwindling* of loans, as compared with the period before the War. But the increase in loans was far more intensive during the War than before it. "The opposite holds true of the rate of speed observed in repayments: it was slower than usual."<sup>32</sup>

We have no data relating to the grain-mortgage operations of the banks for the whole war period. Only for the latter part of 1916 (up to December 1) does the secretariat of the Special Council supply data concerning grain mortgaged with State and private banks. But these data are far from covering all the private banks and all the institutions of small credit. It appears from these figures that there were held in mortgage altogether 32,232,800 puds, of which 6,069,200 were held by the credit associations, 14,924,200 by the State Bank, and only the remainder by the commercial joint-stock banks.<sup>33</sup> At the end of 1916, however, the grain trade was greatly restricted by the Government, so that the above figures cannot be taken as a fair picture of the conditions of the business in grain mortgages in the earlier period of the War.

Nevertheless, we agree with the views expressed by M. Haensel about the middle of 1915 when he says:

We must speak of a general tendency manifested by the banks in their trading policy, rather than of the absolute quantity of their business in comparison with previous years. But it was precisely this persistent tendency to develop their trading operations during the War . . . which played a most important part in this instance. While it is true that our grain trade is strongly "democratized," some of the private grain firms are nevertheless doing immense business, amounting to as much as 100 million rubles a year. Though these firms use only modest credits from joint-stock banks, . . . the policy of the banks

<sup>32</sup> *Trudi Kommissii po Izuchenyu Sovremennoi Dorogovizni*, issue III, p. 265.

<sup>33</sup> See *Torgovie Zapasi Khleba (Stocks of Grain Held by the Traders)*, published by the Special Council on Food Supply, issue I, Petrograd, 1917, pp. iii, 47.

and of these big firms, which coördinate their action with that of the banks, exerts great pressure upon the market. The watchword of price advance, proclaimed by the banks, goes far beyond the sphere of their direct operations.<sup>34</sup>

Speculation by the banks in sugar has been established beyond doubt. The Russian Bank for Foreign Trade, the International Bank, the Kiev Private Bank—these are names we find time after time mentioned in the bulletins of the Kiev Exchange.<sup>35</sup> From Astrakhan it was reported that the banks controlled there the entire business. In May, 1915, the banks applied for 237 out of a total of 357 trucks required for transporting sugar consigned to the municipality of Petrograd. To transport lump sugar, a total of 145 trucks were required, and of these the Russian Bank for Foreign Trade wanted not less than 140.<sup>36</sup> In May, 1915, toward the end of that month, the sugar held by commercial banks amounted to 4,406,400 puds. "If we convert these millions of puds into rubles, the vast amount of money invested by the banks in sugar becomes obvious, not to mention the great dependence of the sugar refineries upon the banks."<sup>37</sup>

"At first, only one or two banks specialized in sugar. Now practically all the banks are interested in this trade. One refinery after another is now falling into the hands of the banks. A tremendous speculation for the rise has started in sugar." Such was the comment of a practical business man acquainted with the situation in 1915.<sup>38</sup>

From the report of the Special Council on Food Supply we have gathered even more interesting facts. It appears that in 1914–1915 the banks had purchased from the refineries a total of 21,395,670 puds, or 26.29 per cent of all the sugar bought.<sup>39</sup> While it is true that this was acquired (in the form of granulated sugar) largely for the refineries belonging to the banks, the fact remains that the figure shown above reveals very strikingly the vast importance of the banks in the sugar trade.

<sup>34</sup> *Trudi Kommissii po Izuchenyu Sovremennoi Dorogovizni*, issue III, p. 265.

<sup>35</sup> *Ibid.*, issue II, p. 163.

<sup>36</sup> *Ibid.*, issue II, p. 164.

<sup>37</sup> *Ibid.*, issue III, p. 267.

<sup>38</sup> *Ibid.*, issue III, p. 259.

<sup>39</sup> *Obshchaya Soobrazheniya o Prichinakh Sovremennoi Dorogovizni*, p. 56.

*The Rôle of All These Factors in the Case of "Plentiful"  
Commodities.*

The refusal of producers to sell, an extraordinarily heavy consumption demand, and speculation by middlemen, in the course of the War, are, consequently, indisputably established facts. But why did all these factors come into play where "plentiful" goods were concerned, such as, for example, wheat, barley, sugar? Let us consider, for instance, the fact that producers refused to send their products to market. What was the cause of this? In the first place, the families of mobilized men were afraid lest their farming enterprises should suffer by their departure and they naturally hoarded as much as possible against such an emergency.<sup>40</sup>

In the second place, the threats of crop failures made the peasantry fear for the future. Thus, in territories that were in danger of a crop failure in 1916, producers could be seen to be positively reluctant to dispose of their goods, whereas in areas where the harvest was expected to be good a decided inclination to sell was noticeable.<sup>41</sup> These reasons are easy enough to understand, but they did not apply everywhere. Moreover, the latter reason could not possibly hold good for 1915–1916.

Apparently, during the first two years of the War, the situation was generally attributable to an altogether different factor: the expectation of a continued rise in prices, which made producers defer the disposal of their goods. This happens to be mentioned very frequently in the reports from various parts of the country, which we have quoted above. But, assuming this to have been true, there arises the question, Whence came the first, initial rise in prices? The monetary wealth of the peasantry cannot, of itself, explain anything, since this was merely one of the conditions that made it possible to refrain from selling; and, according to local reports, the real cause of this hesitation to sell was precisely in the rise of prices. During the period referred to by the reports in question, there certainly was a desire to sell, but at the same time there was a conviction that prices would rise higher. We are driven to assume that

<sup>40</sup> See Prokopovich, *op. cit.*, pp. 137–138; also *Materyali po Voprosu ob Ustanovlenii Tverdikh Tsen na Khlebnie Produkty do Urozhaya 1917 Goda*, Part III, p. 111.

<sup>41</sup> *Obzor Transporta i Rinkov*, issue X, pp. 9, 10, 11, 20, 28, 35, 36.



this conviction rested upon the increasing speculation of the middlemen, who were buying up the products.

*What Makes Speculation Possible?*

Hand in hand with the refusal of producers to market their goods, as we have seen, went an extraordinary consumers' demand. What caused this phenomenon? First of all, the consumer begins to hoard supplies only when he believes that it will be impossible to find them in the market whenever needed. In the second place, the consumer will hoard supplies also when he believes that prices are inevitably bound to advance. This leads us to inquire what caused otherwise plentiful products to become scarce and what was responsible for their rising prices. There is, again, but one possible answer: Speculation by middlemen.

Now, however, another question arises—Where did this speculation originate? As regards those commodities that were greatly reduced in output, or those that simply could not keep pace with the demand, there is nothing very puzzling about the phenomenon of speculation. But in the case of products like wheat, barley, sugar, to some extent also rye, and some others, the presence of speculation during the first two years of the War is a strange phenomenon.

The fact is that speculation cannot assume large proportions so long as it is not supported by certain objective factors which afford continuous ground for speculative combinations and machinations. It is clear that the war-time speculators lost all sense of moderation and discipline. But then, why did not the whole structure of speculation soon collapse, as always happens when speculators sweep the market?

We must admit the possibility, therefore, that the speculators, and especially the banks, did not throw themselves blindly into the risky game of speculation, but reckoned with certain objective factors and conjunctures which seemed to justify their gambling, and that they started their activities with the assurance born of a clearly manifest upward tendency of prices. Such a tendency was bound to show itself at some point, and bound to stir speculative appetites because of its steady progress. In these conditions the banks themselves only follow the actual movement of prices. When prices go up, they extend their credits; when prices fall, they quickly curtail them. At the beginning of the War, when several different kinds of

cereals showed a decline in prices, the banks curtailed their loan operations. A similar phenomenon could be observed in June and July, 1915. Good harvest prospects made the speculators fear the results of the appearance of fresh grain in the market. This explains why, as if at the waving of some magic wand, immense supplies of grain withheld until then by the speculators suddenly appeared in the market during the first months of that summer. To avoid even heavier losses in future, the speculators hastened to dump their stocks on the market. Curtailments of loans by the banks were observable as early as in April. Evidently, both the owners of merchandise and the banks were beginning to fear that the existing high level of prices would not last very long. \*

It thus appears that speculation, taken by itself, can neither raise nor depress prices. All it does is merely to strengthen tendencies which already exist in the movement of prices, acting in the capacity of a huge "amplifier," doubling or trebling the power of economic phenomena and extending their range.

Unable to explain the high prices of a number of commodities under the headings of "potential supply" and "ordinary consumption demand," we have sought assistance in such concepts as "hesitation of the producers to sell," "extraordinary consumption demand," and "speculation by middlemen," as being perhaps the factors that might have caused prices to advance as they did. Yet we were forced to observe at the same time that the latter three factors, in turn, depended very largely during the first two years of the War upon a rise in prices, even though it is admitted that these same factors thenceforth contribute to such a rise. We are here face to face with an evident vicious circle.

This vicious circle, however, is easily broken when we consider another factor that contributed to the increase of the extraordinary consumers' demand and to the speculation of the middlemen, and that stimulated producers to defer their marketing. A hint at this factor may be found in the following statement by a very shrewd business man in reply to a request from the Chuprov Society for his opinion regarding the part played by the banks in the rise of prices:

I hold the banks responsible for the disorganization of our commodity market. This is due chiefly to the fact that they have no policy, but simply follow market developments. In this respect, the banks are

simply speculators. When prices become inflated, they increase their commodity loans and thereby contribute to a still heavier inflation. Again, when prices drop, the banks curtail credits, with the result that prices drop still lower. The harm that is caused by this lack of a definite policy could be seen in the grain business this year. At the beginning of the War, when grain exports came to a standstill, grain prices began to fall and the banks suspended further loans on this commodity. This policy was pursued for about half a year. The result was that in the large centers the stocks of grain were completely exhausted, as the dealer will never keep grain in storage at his own expense. Since no loans were being granted, further consignments of grain to these large centers came to a standstill, with the result that, as already stated, the supplies on hand there were soon exhausted and prices mounted, while prices in the producing localities stood low. . . . It is true, the difference of price in the large urban centers and producing localities resulted in a change of policy in the banks, and they resumed granting loans on grain.<sup>42</sup>

It is entirely wrong to maintain that the depletion of cereal stocks in the large urban centers was bound up with the policy of the banks. But it is quite correct to say that the difference in price, as between producing and consuming markets, resulting from an unequal distribution of foodstuffs throughout the country, was necessarily a factor encouraging speculation, and this, in turn, was bound to cause producers to defer the disposal of their goods. Moreover, the unequal distribution of the foodstuffs throughout the country could not help causing an extraordinary demand by consumers and speculation by middlemen wherever a scarcity was felt and prices advanced.

### *Dislocation of the Market.*

It will be clear from all that has been said here that our problem is chiefly one of an abnormal disruption of producing and consuming markets during the War, causing the effective demand to break away from the ordinary consumption demand (and increase) and the effective supply to break away from the potential supply (and diminish). The whole problem ultimately resolves itself into an in-

<sup>42</sup> *Trudi Kommissii po Izuchenyu Sovremennoi Dorogovizni*, issue II, p. 259.



vestigation of the consequences of the phenomenon known as disorganization of transport, as well as of other factors contributing their share to this disruption of the production and consumption markets.

## CHAPTER IX

### EFFECTS OF TRANSPORT CONDITIONS UPON THE FOODSTUFFS MARKET

#### *Geographical Distribution of Production and Consumption Markets.*

To convey a clear idea of the influence exerted by the state of transport upon the market in foodstuffs, we must say a few words about the geographical distribution of the production and consumption markets in Russia. For obvious reasons, our discussion of this subject cannot go into minute details; we shall operate with large geographical divisions, thus inevitably passing by many very characteristic details in the relations between various areas. We shall begin with cereals.<sup>1</sup>

The consuming regions for the four principal cereals were scattered throughout the empire in several large groups. The largest consuming region comprised all the northern (except Vyatka), northwestern, western, and central industrial provinces, requiring a yearly average of about 241 million puds of the four principal cereals from other parts of the country (we do not consider here those cereal movements which were proceeding between one section and another within the limits of the area we are now discussing). They required chiefly wheat, rye, and oats, and a small amount of barley. Although more wheat than rye used to be sent into this area, the wheat required was considerably less than the rye (146 million puds against 401 million puds). Wheat played the principal part in the requirements of the cities, but this area produced almost exclusively rye (314 million puds against 42 million puds of wheat).

The second area of consumption was made up of the Baltic and Vistula territories (Poland, Lithuania, Livonia, Esthonia), which took 44.3 million puds of the four cereals. Next followed Trans-Caucasia, requiring 20.2 million puds, the Amur, taking 17.4

<sup>1</sup> Information on grain areas, as well as Tables 46, 47, and 48, has been taken from the monograph of M. Demosthenov, *Klebni Balans Rossii* (*Grain Balance of Russia*), published in *Ekonomicheskaya Zapiski* (*Economic Bulletin*), issues I and II, Paris, 1921, and compiled on the basis of the materials of the official publication of the Special Council on Food Supply *Proizvodstvo, Perevozki, i Potreblenie Khlebov v Rossii*, issue I, Petrograd, 1916. The figures used here are averages for 1909–1913.

million puds, Turkestan, with 17.1 million puds, and Astrakhan province and Eastern Siberia. Data concerning the production, consumption, dispatches, and receipts of cereals in all consumption areas will be found in Table 46.

The deficits in the cereal supply of the territories just enumerated were covered by consignment from the producing areas, which formed a semicircle about the largest area of consumption, in the north, northwest, west, and center of the country. The producing belt ran in a broad strip, which included the Ukrainian, Novorossisk, and central agricultural regions, from the southwest of Russia to the southeast (to Ciscaucasia and the Don territory), extended along the Volga as far as the Kama region, and terminated in Western Siberia in the east, and in the Steppe region in the south. Beyond this producing belt were situated consuming areas of secondary importance. The reservation should here be made, however, that the production regions were not necessarily production regions for all four principal cereals: while they might have been dispatching to other sections of the empire (net dispatches, in excess of receipts) one or another kind of grain, they might have been receiving others (net receipts, that is, in excess of dispatches). If we have classified certain areas as production, we have done it only because dispatches of one particular kind of cereal belonging to one particular group of cereals (food, fodder, etc.) exceeded the receipts of some other kind within the same group of cereals.

The Kama<sup>2</sup> and central agricultural<sup>3</sup> producing areas produce mainly rye and oats. As regards wheat, they had to bring it in from other sections of the country, but barley they themselves grew in nearly sufficient quantities. However, they dispatched at the same time rye (grain and flour) and oats, amounting to 173 million puds. After balancing dispatches of rye and oats, on the one hand, and receipts of wheat and barley, on the other, we still obtain, for the net dispatches, the very impressive figures of 44.7 million puds of rye and 106.4 million puds of oats.

The southwestern,<sup>4</sup> Ukrainian,<sup>5</sup> and southeastern<sup>6</sup> regions pro-

<sup>2</sup> Provinces of Vyatka, Kazan, and Ufa.

<sup>3</sup> Provinces of Penza, Tambov, Ryazan, Tula, Orel, and Kursk.

<sup>4</sup> Provinces of Kiev, Volhynia, and Podolia.

<sup>5</sup> Provinces of Poltava, Kharkov, and Voronezh.

<sup>6</sup> Provinces of Orenburg, Simbirsk, Samara, and Saratov.



TABLE 46  
PRODUCTION, CONSUMPTION, NET RECEIPTS, AND NET DISPATCHES  
OF CEREALS IN CONSUMPTION REGIONS<sup>7</sup>

Regions	Rye and wheat			Barley and oats		
	Production	Receipts (-) Dispatches (+)	Consumption (in thousands of puds)	Production	Receipts (-) Dispatches (+)	Consumption
1. Northern	784.1	-3,927.2	4,711.3	2,148.7	-1,048.4	3,197.1
2. North Agricultural	27,996.1	-18,904.8	46,900.9	33,480.3	+836.7	32,643.6
3. Petrograd	6,069.9	-35,829.3	41,899.2	6,350.2	-22,431.5	28,781.7
4. Western	119,089.4	-20,420.2	139,509.6	71,591.8	+2,400.0	69,191.8
5. Central Industrial	136,633.9	-103,120.4	239,754.3	96,637.1	-27,419.3	124,056.4
6. Ural	65,108.7	-9,365.2	74,473.9	53,608.6	-1,384.4	54,993.0
Total	355,682.1	-191,567.1	547,249.2	263,816.7	-49,046.9	312,863.6
7. Lower Volga	9,206.7	-7,844.4	17,051.1	396.8	-1,925.6	2,322.4
8. Turkestan	71,588.4	-16,342.0	87,930.4	24,535.2	-801.3	25,336.5
9. Eastern Siberia	23,806.5	-3,684.4	27,490.9	9,787.1	-484.2	10,271.3
10. Poland, Lithuania, Baltic provinces	279,545.9	-37,907.5	317,453.4	189,143.0	-6,260.8	195,403.8
11. Trans-Caucasia	41,053.8	-19,254.0	60,307.8	22,655.0	-858.3	23,513.3
12. Amur region	22,731.5	-15,251.0	37,982.5	16,594.3	-2,095.1	18,689.4
Grand total	803,614.9	-291,850.4	1,095,465.3	526,928.1	-61,472.2	588,400.3

<sup>7</sup> Flour is expressed in terms of grain.

<sup>8</sup> These regions were composed of the following provinces: 1, Archangel; 2, Olonets, Vologda, Novgorod; 3, Petrograd; 4, Pskov, Vitebsk, Mogilev, Minsk, Chernigov; 5, Smolensk, Tver, Yaroslav, Kostroma, Nizhni-Novgorod, Vladimir, Moscow, Kaluga; 6, Perm; 7, Astrakhan; 8, Semiritchie, Syr-Daria, Samarkand, Ferg-hana, Trans-Caspia, Bokhara; 9, Yenisei, Irkutsk; 10, 11, as indicated above, and 12, Maritime, Trans-Baikal, Amur.

duce rye, wheat, barley, and oats. In the aggregate these regions dispatched 228 million puds of rye and wheat (grain and flour), of which rye made up about 50 million puds, and about 32 million puds of barley and oats, of which oats made up about 21.5 million puds.

The third large area of production comprised the Novorossisk-Don<sup>9</sup> region and Ciscaucasia.<sup>10</sup> These are mainly wheat and barley territories. Their dispatches of wheat and rye (grain and flour) reached the enormous figure of 315 million puds (about 31 million puds of rye), and of barley 211 million puds.

Lastly, West Siberia<sup>11</sup> and the Steppe<sup>12</sup> region produce chiefly wheat and oats. They are not very important in the total cereal production of the country, for they dispatched only 27.1 million puds of rye and wheat (grain and flour), and 2.3 million puds of oats and barley; yet the mistaken idea prevails that Siberia offers a well-nigh inexhaustible reservoir of cereals.

The totals of production, consumption, and other items of interest concerning the production regions will be found in Table 47. We may add here that not only did the production areas cover the deficits of the consuming areas, but that they were able, in addition, to export enormous quantities of grain to foreign markets. The total cereal balance of the empire is given in Table 48.

Before we proceed to consider regions producing foodstuffs other than cereals, a few words should be said regarding the chief centers of flour production. Table 49 gives a clear view of the most important flour-manufacturing areas. Most of these belong at the same time to the category of provinces dispatching grain to other sections of the country, that is, most Russian flour-manufacturing areas have their own local supply of grain and are situated in the producing zone. Still, there are also important flour-producing centers situated in the consuming regions, or next to these, working their mills with outside grain. Such centers are: Ribinsk, in the province of Yaroslav, Sizran, in the province of Simbirsk, Nizhni-

<sup>9</sup> Provinces of Bessarabia, Tauride, Kherson, Ekaterinoslav, and the Don Territory.

<sup>10</sup> Province of Stavropol and the territories of Terek and Kuban.

<sup>11</sup> Provinces of Tomsk and Tobolsk.

<sup>12</sup> Territories of Akmolinsk, Uralsk, Turgay, and Semipalatinsk.

TABLE 47  
 PRODUCTION, CONSUMPTION, NET DISPATCHES, AND NET RECEIPTS  
 OF CEREALS IN PRODUCTION REGIONS<sup>13</sup>

Region	Rye and wheat			Barley and oats		
	Production	Receipts (-) Dispatches (+)	Consumption (in thousands of puds)	Production	Receipts (-) Dispatches (+)	Consumption
1. Kama	174,361.2	+28,792.2	145,572.0	115,767.9	+23,339.8	92,428.1
2. Central Agricultural	262,932.9	+15,874.5	247,058.4	177,270.7	+83,098.2	94,172.5
Total	437,297.1	+44,666.7	392,630.4	293,030.6	+106,438.0	186,600.6
3. Southwestern	191,842.4	+18,854.4	172,988.0	113,660.4	+3,244.6	110,415.8
4. Ukraine	230,851.1	+58,835.9	172,015.2	121,134.6	+19,575.2	101,559.4
5. Southeastern	320,318.5	+150,580.1	169,738.4	69,697.2	+9,402.3	60,294.9
Total	743,012.0	+228,270.4	514,741.6	304,492.2	+32,222.1	272,270.1
6. Novorossisk-Don	450,170.9	+235,219.0	214,951.9	323,893.1	+169,471.2	154,421.9
7. Ciscaucasia	207,347.5	+79,367.2	127,980.3	116,358.1	+42,392.5	73,965.6
Total	657,518.4	+314,586.2	342,932.2	440,251.2	+211,863.7	228,387.5
8. Western Siberia	103,807.1	+15,272.7	88,534.4	62,299.9	+3,014.0	59,285.9
9. Steppe	38,372.6	+11,858.4	26,514.2	8,047.9	-703.3	8,751.2
Total	142,179.7	+27,131.1	115,048.6	70,347.8	+2,310.7	68,037.1
Grand total	1,980,007.2	+614,654.4	1,365,352.8	1,108,129.8	+352,834.5	755,295.3

<sup>13</sup> Flour is expressed in terms of grain.



Novgorod, and Esthonia. To the same category may be added a few flour centers in the province of Orel (Eletz, Livny), and others.

TABLE 48  
GRAIN BALANCE OF RUSSIA, 1909-1913<sup>14</sup>

	<i>Rye</i>	<i>Wheat</i> (in thousands of puds)	<i>Barley</i>	<i>Oats</i>
<i>Production:</i>				
Production regions	853,220.2	1,126,787.0	508,148.8	599,981.0
Consumption regions	576,412.3	227,202.6	162,340.2	364,587.9
Total	1,429,632.5	1,353,989.6	670,489.0	964,568.9
<i>Consumption:</i>				
Production regions	705,300.6	660,052.2	283,578.4	471,716.9
Consumption regions	678,456.9	417,008.4	162,850.6	425,549.7
Total	1,373,757.5	1,077,060.6	446,429.0	897,266.6
<i>Balances:</i>				
Dispatched from pro- duction regions	+147,919.6	+466,734.8	+224,570.4	+128,264.1
Received in con- sumption regions	-102,044.6	-189,805.8	-510.4	-60,961.8
Balance available for foreign exports	+45,875.0	+276,929.0	+224,060.0	+67,302.3

TABLE 49  
FLOUR PRODUCING PROVINCES

(Figures in this table represent averages for the period 1909-1913)

<i>Rye flour</i>			<i>Wheat flour</i>		
<i>Province</i>	<i>Flour dispatched (+) (in millions of puds)</i>	<i>Grain dis- patched (+) and received (-)</i>	<i>Province</i>	<i>Flour dispatched (+) (in millions of puds)</i>	<i>Grain dis- patched (+) and received (-)</i>
1. Tambov	+13.06	+2.97	1. Saratov	+18.98	-1.74
2. Saratov	+8.61	+0.77	2. Ekaterinoslav	+13.28	+32.24
3. Ufa	+5.66	+15.83	3. Poltava	+12.13	+0.64
4. Samara	+5.23	+9.00	4. Samara	+12.11	+61.74
5. Kazan	+4.86	+5.08	5. Nizhni-Novgorod	+9.42	-18.65
6. Poltava	+4.05	+4.51	6. Don Territory	+8.99	+48.49
7. Penza	+3.90	+0.25	7. Orenburg	+8.22	+6.53
8. Simbirsk	+3.30	+0.93	8. Kharkov	+5.88	+5.55
9. Yaroslav	+3.08	-7.12	9. Kuban Territory	+5.15	+50.33
10. Esthonia	+3.06	-3.66	10. Simbirsk	+4.67	-4.29

<sup>14</sup> Flour is expressed in terms of grain.

*Other Foodstuffs.*

We may now consider the foodstuffs other than cereals.

Regarding the butter-producing regions we have already stated all that may be of interest. We have shown that the principal areas of production of this article were in Siberia and northern European Russia (the provinces of Vologda, Novgorod, Yaroslav, Tver, and some others).

In the dispatches of live stock and meat, the most important part belonged to the Lower Volga, southwestern, Ukrainian, Steppe, Novorossisk, Siberian, and central agricultural provinces (named here in the order of their importance). Upon the whole, it may be said that such dispatches came largely from areas with a plentiful supply of forage. In the southwestern areas excellent feeding material was obtained from the sugar plantations: in the Steppe region and Siberia, from their naturally fine pastures; and in the central areas, from the distilleries. We observe thus that cattle and meat came chiefly from the grain-producing regions. The sole exception was in the case of swine: Poland ranked first as a source of this supply.

The production of sugar is concentrated in the following provinces: Kiev, Podolia, Kharkov, Kursk, Volhynia, Chernigov, Kher-son, and several others, that is, in the southwestern, Ukrainian, and central agricultural regions<sup>15</sup> (the production ranking in the order here named).

The production of salt as already noted is concentrated in the regions of Perm, Orenburg, Donets, Astrakhan, and the Crimea.

*Disorganization or Inadequacy of Transport? Analysis  
of the Phenomenon and Its Significance.*

From what has been stated here concerning the geographical distribution of the Russian production and consumption markets, it should be easy to form a conception of the vast significance of a disorganized transport system. The phenomenon known in Russia during the War as disorganization of transport was, strictly speaking, not so much a disorganization of transport as an inadequacy

<sup>15</sup> See A. D. Breiterman, *Potreblenie Sakhara v Rossii (Consumption of Sugar in Russia)*, Petrograd, 1916; also *Obzor Deyatelnosti Osobago Soveshchanya po Prodovolstvyu*, pp. 386 sqq.

of facilities. Every source of information seems to show that the amount of work actually performed by the railways vastly increased during the War. Neither heavier loads nor longer hauls were sufficient to overcome the following two obstacles which prevented the Russian railways from coping with the demands presented to them: (1) insufficient rolling stock, especially on the State railways, coupled with a poor capacity of the line, and (2) uneven geographical distribution of the network of railways, with the result that the maximum capacity of the line east of the Petrograd-Moscow-Khar'kov-Sebastopol railway was only one-third of that in the western parts of the country.

Yet the course of military freights ran from east to west, so that the weak eastern system was soon congested and the traffic from south to north was blocked. The natural consequence was that it was difficult to move food supplies from the eastern and southern regions to the northern and central consuming regions. As long as the front remained stationary, or as long as it kept moving only gradually or partly, the railways were able somehow to handle their traffic problems. But at periods of troop concentration or mobilization, at moments of a general offensive or retreat, especially when retreats were complicated by vast migrations of refugees, the railways found themselves absolutely unable to cope with the situation. Thus, for instance, from the outbreak of the War till the middle of October, 1914, civil freights had to be stopped entirely, to permit the mobilization and concentration of the army.

During the first half of 1915 there was a considerable improvement in the situation, only to be followed again by the acutest form of disorganization, due to the retreat of the Russian armies and the wholesale evacuations of institutions and refugees in the latter part of the year. Similar situations were observed again in 1916, and they became worse in 1917, after the Revolution.

It should be noted that disorganization of transport affects the market in foodstuffs and the movement of prices not only when it results in an obvious deficit in the usual quantity of freight delivered within a certain definite period of time; it affects the market and the prices also when—in spite of an almost normal total result of transport—there is an extreme irregularity in transport within a certain definite period of time. This irregularity of transport, even though it may ultimately produce only a small deviation from



the normal, constitutes an independent factor in the determination of prices not always sufficiently realized and emphasized. Hence it follows that a mere comparison of the amounts of freight conveyed in peace-time and in war cannot be considered sufficient. For example, we cannot assert that the disorganization of transport had no influence whatever upon the flour market only because as much flour was carried during the War as before the War. But the presence of an actual shortage in deliveries always must be regarded as a sure sign of disorganization of transport and shows that it has its effect upon the market.

It is to be regretted that no complete reports on the conveyance of freight, and especially of foodstuffs, are available for the entire period of the War. We offer below two tables compiled from official data.<sup>16</sup>

TABLE 50  
FREIGHTS MOVED BY RAIL<sup>17</sup>

	1913	1914	1915
	<i>(in thousands of puds)</i>		
European Russia	14,938,008	12,974,546	10,727,142
Asiatic Russia	653,393	627,519	803,878
Total	15,591,401	13,602,065	11,531,020

TABLE 51  
FOODSTUFFS MOVED BY RAIL

	1913	1914	1915
	<i>(in thousands of puds)</i>		
Grain	844,548	628,149	433,213
Flour (rye and wheat)	284,284	294,595	306,956
Meat (exclusive of pork)	9,602	9,002	9,306
Pork and bacon	3,552	3,624	3,265
Cabbage	7,718	7,259	7,075
Potatoes	38,086	33,355	27,028
Onions	5,454	4,687	3,556
Cucumbers	3,538	2,358	1,218
Fish (live, fresh, frozen)	8,500	8,743	6,873
Fish (dried, smoked, salted)	58,291	45,050	36,374

<sup>16</sup> See *Narodnoe Khozyaistvo v 1916 Godu*, issue VII, pp. 276-293.

<sup>17</sup> The length of the Russian railway lines was 62,346 versts (43,642 miles) in 1914, and 63,654 versts (44,558 miles) in 1915.

	1913	1914	1915
	<i>(in thousands of puds)</i>		
Sugar and sugar residue	136,920	125,718	131,595
Salt	123,814	115,057	98,551
Buckwheat grits	15,645	12,929	7,483
Millet	19,674	19,369	13,809
Dairy products	27,182	23,181	20,007
Fats and tallow	5,264	4,533	4,623
Eggs and yolks	17,220	13,676	8,803
	<i>(in thousands of heads)</i>		
Large horned cattle	1,494	1,364	1,339
Swine	1,405	1,041	870

This picture of "transport deficits" in foodstuffs during the War will change considerably when we take into consideration that during 1913 and 1914 a portion of all such consignments was carried by rail for export abroad. We regret that we are unable to arrive at reliable figures of the consignments by rail and those by water, for the purpose of export. In 1913, about 517 to 524 million puds of cereals went abroad by rail. For the first half of 1914 no data are available.

Taking into account the geographical distribution of the Russian markets of production and consumption, as well as the peculiar features of the disorganization of transport, we are able to see at once that these transport difficulties inevitably broke up the whole country, as it were, into several isolated areas. Roughly speaking, and leaving aside consumption regions of secondary importance, we are justified in assuming that the disorganization of transport broke the connection between the production areas of the south and southeast, on the one hand, and the immense consumption areas of the center, north, and northwest, on the other. Our further discussion will, therefore, proceed upon the assumption that there was a geographical isolation between the areas of consumption and production, in spite of the fact that we recognize the consuming character of large cities irrespective of their situation in an area of consumption or production.

#### *Effect of Disorganization of Transport upon Prices.*

We may now inquire how, and to what extent, disorganized transport affected prices in consumption and production regions. Did Russia during the War lapse into a state such as prevailed at a time

when she was still divided into several entirely independent economic regions? And was there a complete breakdown of the ordinary machinery by which prices are determined? The truth is that there was no such thing as a complete disruption of the country into entirely isolated areas, with an independent demand and supply, and with an independent movement of prices. Yet, with transport badly crippled, the whole machinery of price formation differed greatly from what it was previous to the War, resulting in truly amazing phenomena.

Under the normal conditions of transport, uniform ratios of demand and supply throughout the empire were obtained by co-operation, as it were, between production and consumption markets. Demand in production markets was a more or less exact counterpart of demand in consumption markets; and supply in consumption markets was a counterpart of supply in production markets. In this manner relations between demand and supply in the two different groups of markets all over the country were rendered more or less uniform (disregarding, of course, such modifying elements as freight charges, etc.); in other words, there was something like coöperation between the two groups of markets.

Given such coöperation, and given that the food producers had an interest in selling during the first two years of the War their plentiful products, that is, such as offer a potential supply either equal to or in excess of ordinary consumption demand—given these conditions, prices could not rise, because no reduction in the effective supply, as compared with potential supply, could then occur, nor could there be any excess of effective demand over ordinary consumption demand. In the case we are discussing here, both these latter circumstances could have arisen only in consequence of a rise of prices, although, no doubt, they would then accelerate (sometimes to an almost incredible extent) such a rise. The question then, in the case of plentiful products, is how could the first original advance in prices, even if only local in character, ever arise, if it was not warranted by the relation between potential supply and ordinary consumption demand; if producers did not lose their interest in selling; and if there was no difficulty in getting the entire supply of such products to the consumers and there was nothing like a shortage, not even a purely local scarcity, anywhere in evidence?



It is clear that it cannot arise anywhere under such conditions. According to all our assumptions, the effective supply of plentiful products would always have to coincide with the potential supply, and the effective demand would have to coincide with the ordinary consumption demand and, consequently—so long as the potential supply meets the ordinary demand—there should be no possibility of prices rising. An advance of price and divergence between the different kinds of supply and demand just referred to would, under normal transport conditions, occur only in: (1) plentiful products, if their producers lost their interest in selling, and (2) scarce products, that is, such as offer a potential supply that fails to meet ordinary consumption demand.<sup>18</sup>

But during the War transport was not normal, with the result that market coöperation could not bring about uniformity in the ratios of demand and supply throughout the country for the simple reason that this coöperation came to an end with the normal conditions of transport.

With transport disorganized, the supply available in the consumption markets should naturally have been lower than in the production markets (insufficient receipts). This is an incontestable proposition. At the same time, evidently, the demand in the production markets should likewise have been lower than the demand in the consumption markets, for, as long as products could not be sent away, there would be little object in laying in supplies to the extent that they were being laid in before. Whether this latter proposition be right or wrong, the first alone would suffice to show that, with a disorganization of transport, there is no coöperation between the two sets of markets, in the sense in which we understand the term co-

<sup>18</sup> In the first instance scarcity and price increase would be stimulated by a reduction of effective supply as compared with the potential supply (withholding of goods by producers who lose their interest in selling); such scarcity, combined with the initial price increase resulting therefrom, might, in turn, cause an increase in the effective demand above ordinary consumption demand (the appearance of a speculative and extraordinary consumption demand) and thus lead to a further advance in price.

In the second instance, prices might increase because of a real, original scarcity of products, even when producers happened to be interested in selling. The original increase in price might, in turn, produce a divergence between effective demand and supply, on the one hand, and ordinary consumption demand and potential supply, on the other; in other words, it might lead to further advance in price.

operation here. The following conclusion seems inevitable: With a disorganized transport and in the absence of market coöperation it is impossible to have a uniform ratio of supply and demand throughout the whole country; a uniform movement of prices is impossible; and, lastly, the disruption of the country into a number of isolated markets becomes inevitable. Such a conclusion would be erroneous, however. Besides, it is definitely contradicted by the experience of the war period. The puzzle is solved quite simply.

Notwithstanding that disorganized transport always destroys the coöperation of the various markets, the absence of such coöperation does not always, but only when the disorganization of transport is very extensive, result in the disappearance of uniformity in the determination and movement of prices; for in the event of great disorganization there is no other principle available that consolidates all the markets. But when the disturbance of transport is relatively slight, and in the presence of a powerful, active commercial organization,<sup>19</sup> other principles, such as the principle of the hegemony of certain markets over others, may replace the principle of coöperation as a basis for the relations between production and consumption markets. The result would be the maintenance of uniformity in the determination of prices throughout the country.

It was precisely this latter phenomenon that was observed in Russia during the War. If this proposition is correct, then, remembering the general increase in food prices during the War, we shall have to admit that there was established a hegemony of those markets in which the disorganization of transport inevitably brought about an advance of prices. Since the increase in prices affected even plentiful produce, and this even while the producers had as yet not lost their interest in selling, we are forced to the conclusion that price increase and transport disorganization in one kind of markets had a tendency to produce throughout the country a ratio between effective demand and supply that no longer corresponded to the ratio between ordinary consumption demand and potential supply. Let us try to verify this proposition.

<sup>19</sup> Russia had a very effective and strong commercial organization. The turnover of many grain firms ran as high as 100 million rubles a year. It is significant that, according to data from the Ribinsk Grain Exchange, the port of Ribinsk handled in the navigation season of 1914, 66,097,000 puds of grain cargoes, and that over one-half of all cargoes belonged to not more than twenty-eight owners.

The markets in which the disorganization of transport inevitably advanced the prices of all foodstuffs (including the plentiful) were the consumption markets. The potential supply in these markets, being dependent exclusively upon receipts of outside produce, was greatly curtailed. Hence, had even the entire potential supply become an effective supply, and had the effective demand coincided with the ordinary consumption demand, a rise in prices would still have been inevitable. But in reality conditions were even worse. The constant menace of interrupted receipts and the expectation of a further rise of prices had as their consequence: (1) the appearance of a speculative demand and the hoarding of products by the middlemen, and (2) the appearance of an extraordinary demand by consumers, for hoarding purposes. These secondary results still further increased the prices, since they tended, owing to the speculative hoarding of stocks, to reduce the effective supply below the potential supply, already reduced because of insufficient deliveries; and also tended to produce an excess of the effective demand over the ordinary consumption demand, because there was now an extraordinary consumption demand, as well as a speculative demand. The consequence was that the ratio between effective demand and supply, and therefore also the level of prices in the consumption markets, differed markedly from those obtaining in the production markets.

It would thus be permissible to speak of a hegemony of consumption markets over those of production during the War if it were possible to demonstrate that the peculiar state of the consumption markets must necessarily affect either supply or demand, or both, in the production markets, and this in such a way as to bring about in the latter a relation similar to that existing in the consumption markets. It is clear that the peculiar situation in the consumption markets could not, at first, cause any reduction of supply in the production markets, because (1) the same factor that was responsible for the reduction of the supply in the consumption markets (insufficient dispatches) caused a relative glut in the production markets and was bound to create a tendency for prices to fall, which, in turn, stimulated the desire of producers to dispose of their stocks as soon as possible (assuming, of course, that they had any interest in selling), and (2) the rise of prices in consumption markets could not, without first causing higher prices in production markets, bring



about directly any withholding of supplies by producers, since the considerations that ultimately weigh most with the producers, but particularly with the peasants, are only that demand and those prices which apply directly to themselves.

Hence a ratio of effective demand and supply in the production markets that would be equal to the ratio prevailing in the consumption markets, or almost equal, could (if at all) be initiated only if the situation in the consumption markets had been able to produce an abnormally active demand in the production markets, a demand sufficiently large to overcome and even to exceed the available supplies. In other words, a ratio of supply and demand in the production markets similar to the ratio prevailing in the consumption markets must at first have been constructed on a basis of expanding supply and demand, and not on a basis equal to that in the markets of consumption.

The factor that greatly stimulated the demand in the production markets was the extraordinary difference in prices in producing and consuming areas, due to the specific conditions existing in the consumption markets—a difference that made it seem all the time as if the consumption markets were absolutely insatiable, and which held out prospects of immense profits to all those who would be in a position to furnish supplies to those markets. In the presence of a disorganized, but not entirely broken down transport system, every individual merchant would hope that he would be the one fortunate enough to get into the consumption markets sooner than his competitors and profit by the difference of prices. This explains the increased buying of foodstuffs by speculators; but there were also other stimulating factors: (1) the necessity of having stocks ready at different places in the producing area, so as to be in a position to dispatch promptly in spite of disorganized transport, and (2) slackened competition among the speculators themselves, because of disorganized transport, making any owner of supplies hopeful that, after transport from his own territory had been resumed, he would be able to exercise practically a monopoly and demand any price he chose, without fear of the buyer going elsewhere (as transport conditions would not be equally good in other parts of the country), or of goods coming in from neighboring regions.

The vast extent of this speculation was also due to certain other causes, which, while not a result of disorganized transport, yet af-

fects strongly the consequences of disorganized transport. In the first place, the enormous and steadily increasing demand of the army, which we have already discussed, and which, as we have learned, was met, in the case of cereals, by purchases through middlemen, who furnished during the first two years of the War up to 60 per cent of all requirements. This possibility of disposing of their stocks at greatly inflated prices (the army necessarily had to pay generously) strengthened enormously the entire structure of speculative business; for, as a result of this possibility, something like a twofold insurance was now created for the merchants: should things go wrong in the consuming areas, there would be the army to fall back on; and should business with the army fail, there were still the consuming regions to rely on. Inflated prices were justified by the speculators when they sold to the army on the ground that there was also a civilian demand, and when they sold to the civilian buyers they justified their prices on the ground that there was a demand by the army. In either case they found an excuse for charging more.

The situation was very clearly presented in a report from the Commissioner of Ufa province:

At first there were no fixed (regulated) prices. I started the purchase of rye at 70 copecks. The middlemen offered 75. I offered 75. The middlemen offered 80. We continued in this way until we arrived at a situation where buckwheat, which had cost 80 copecks, had mounted to 1.6 rubles. By this time . . . fixed prices were established. . . . What would be the situation now, if they were to operate at competitive prices side by side with me? Either the army would not be supplied with indispensable products, or we should be forced to pay for these products 3 or perhaps even 5 rubles, instead of 1.5 to 2. What was there to prevent this?

Another factor tending to increase speculation was the expectation, in 1914–1915, that the Dardanelles would be thrown open to shipping, not to mention the expectation of an early end of the War in general; in these events the grain traders hoped to sell their stocks abroad at a profit, as prices in other countries had also mounted very high.

The extraordinary extent of speculation in the production markets, having brought about an increase in demand that was far above the demand of the consumption markets, would have ended very soon in a complete collapse of the entire business, had it not

been for the fact that vast changes took place on the side of supply, due to speculation itself. Heavy buying, driving the prices upward, induced both the middlemen already supplied with stocks and the producers (the peasants finding themselves with plenty of money) to refrain from selling, in the hope of a further increase of price, and the result was that the effective supply shrank considerably below the potential supply. We thus see the explanation of the withholding observed among producers during the first two years of the War, notwithstanding that there was really an interest in selling at that time.

We may now sum up all that we have stated above with reference to the production markets. Through the medium of price differences, the disorganization of transport was able to establish something like a hegemony of consumption markets over production markets in the matter of ratio between demand and supply, and prices. In this process the effective demand in production markets expanded far beyond the limits of the ordinary demand, entire consumption demand (ordinary and extraordinary), and even entire effective demand in general (total consumption demand and speculative demand), in the markets of consumption. The accompanying advance of prices in the production markets resulted in a shrinkage in the effective supply, as compared with the potential supply, and producers and sellers became "sluggish," waiting for a further rise in prices. To this should be added the fact that the tension between effective demand and supply in the production markets could, after all, not be as high and persistent as in the consumption markets, when supplies were plentiful. We therefore observe in the markets of production: (1) a weaker advance in prices, as a general rule; (2) a price movement tending even in the direction opposite to that prevailing in the consumption markets (the latter temporarily lost their hegemony), when harvests were abundant; and (3) a certain lack of stability in the speculative spirit, resulting in the appearance of double sets of prices for many products, since the speculators, afraid to find themselves left with large stocks on hand, considered not only transport possibilities, but also local conditions of demand: from the local consumers and dealers they demanded lower prices than from those persons of whom they were aware that they were buying for other markets and able to dispatch the goods thither, and at higher prices. This duality in prices was not of the



same nature as the duality arising from the existence of local price regulation together with competitive prices, for it affected also the competitive prices.

In any event, the situation in both categories of markets was such that the actually observed demand throughout the country was considerably in excess of the ordinary consumption demand (even when we take into account the expansion of the latter), while the supply actually available in the markets was much below the potential supply. The result was that an opportunity arose of increasing the prices even of plentiful products, for it is only the demand and supply actually present in the market that determine prices (in the case of scarce products or of such plentiful products the owners of which had lost their interest to sell, disorganization of transport only strengthened the further advance of prices).

It has been assumed thus far in our discussion that the disorganization of transport does not lead to any reduction of the potential supply in the country as a whole, but only in areas depending for their potential supply upon goods brought in from the outside. In other words, we have assumed that its only result throughout the country in the domain of supply was a reduction of the effective supply, as compared with the potential supply (in other words, that it was merely the full manifestation of the potential supply in the market which was rendered difficult).

In reality, however, in the case of certain products, the disorganization of transport is likely to result not only in the condition just described, but likewise in a curtailment of potential supply itself, that is, to exert a twofold influence upon supply, by arresting production either in whole or in part. These results of transport disorganization ensue: (1) when there is difficulty in dispatching goods from areas of production, but this only when it leads to the spoiling of goods or when it affects the process of production itself, for instance, when storage accommodation within a given territory is congested, including also such storage room as may be expected normally to be emptied regularly to receive further goods, as where production is continuous, and not seasonal; and (2) when there is difficulty in bringing up sufficient raw material and fuel.

As we see, the disorganization of transport causes the arrest of the production of foodstuffs mainly in the domain of the food-manufacturing industry, and it will be easily understood that congestion

of storage facilities plays the most important part in those production areas which are remote from the consumption markets and at the same time near to areas of raw material and fuel supply, while insufficient deliveries of raw material and fuel play the most important part in those production areas which are close to the consumption markets, but remote from the areas of raw material and fuel supply. But since the Government, unable to assure in equal measure the dispatch of goods that were ready for consumption and the delivery of raw material and fuel, strove, in the first place, to supply the civilian population and the army with ready goods, no matter where they might happen to be available, the following consequences ensued: the chances of dispatch of ready products were made in some degree equal for all markets; the importance of storage congestion as a cause of stoppage in production was greatly lessened; and at the same time the conditions of supply of raw material and fuel became the factor determining both the course of production and the stocks of ready products in the several production areas.

This was the reason why prices of flour and grits in production markets needing raw material and fuel, or either, rose not only more than prices of the same products in other production markets, working with local raw material and fuel, but very often even more than prices in consumption markets. The latter circumstance shows that the increased scarcity of the ready product in the first group of markets established the normal ratio between the movement of prices in these markets and the movement of prices in the consumption markets, since, generally speaking, in view of differing levels of absolute prices in the production and consumption markets, and in view of the unvarying costs of transport, every advance in prices in the consumption areas may be accompanied by a heavier increase in prices in the areas of production.

We see then that disorganization of transport led to a reduction in the output of the industries manufacturing foodstuffs and, consequently, to a diminished potential supply. The result was that (1) speculation, often due to the disorganization of transport, obtained a new and firmer basis, and (2) ready products had a tendency to grow scarcer than the available supply of raw material justified.

The latter circumstance explains why flour prices apparently not only failed to lag behind advancing grain prices to the extent which might have been expected in view of the relative importance of the

cost of grain in the total value of flour, but why the advance in flour prices clearly outdistanced the advance in the price of grain. This, no doubt, holds true only for flour in general, and with the exception of the first half of 1915; but when we consider that our data refer in an overwhelming degree to the production markets, we can explain the unequal movement of prices of flour and grain for different kinds of grain during one and the same period, and for one and the same kind of grain during several different periods, by the fact that there was a specific combination of circumstances surrounding the disposal of the flour (such as difficulty of dispatch), the deliveries of grain, and the government purchases. Later on we shall revert to this matter and try to explain why it was precisely in the first half of 1915, with a transport system working more or less normally, that millers were complaining of an overproduction of flour while the grain market was suffering from a shortage of grain.

Let us now sum up all that has been stated thus far. We observe that the disorganization of transport has furnished us with the key to an understanding of the following phenomena: (1) rising prices of all plentiful products; (2) a stronger advance of prices in the consumption markets than in those of production, all exceptions to this rule having been found to be merely the consequences of particularly severe damage caused by transport disorganization to the production of certain goods, and this, too, only in certain areas of production; and (3) a stronger advance in the price of flour than in that of grain (broadly speaking).

*Two Phenomena Unexplained by Transport Disorganization.*

There were two further phenomena that might, at first sight, be attributed to the disorganization of transport: (1) the increase in the price of butter in 1916, and (2) the strange rise in the price of all cereal products during the first half of 1915. As regards the first point, no butter for the needs of the population was transported from Siberia after the close of 1915. Now, however serious the transport disorganization may have been, the conveyance of 1 to 1.5 million puds of butter in the course of a year could not prove insurmountably difficult. It is obvious that a factor was at work here which, although very similar to transport disorganization in its results, yet was different. Still more puzzling was the grain situation



during the first half of 1915: In spite of an abundant supply of cereals, and in spite of a comparatively favorable condition of transport, at this particular period, we observe a mad upward race of prices. At the same time (in June) we hear the complaints of the millers of an overproduction of flour, insufficient grain supply, etc. We are driven to believe that in this instance, likewise, there must have operated the same factor that was responsible for the abnormal increase in butter prices in 1916. This factor we shall discover later on.<sup>20</sup>

<sup>20</sup> The theory of the influence of transport disorganization on prices outlined above was suggested by M. Demosthenov in 1916 and has been accepted by the most recent investigator of the war market, M. Kondratev.

## CHAPTER X

### EFFECTS OF DISORGANIZED COMMODITY EX- CHANGE UPON THE MARKET IN FOODSTUFFS

#### *Loss of Interest in Selling.*

IN any study of the movement of prices of a particular commodity, and in analyzing the factors responsible for such a movement, it would be fundamentally wrong to consider the market for this commodity alone and pay no attention to market conditions for other commodities. This, because the demand for one article has a very close bearing upon the demand for others; and, similarly, the supply of a certain article may have a very intimate relation to the supply of other articles.

This principle is of primary importance, for it explains some curious features of the market in foodstuffs in Russia during the War. From what has been said thus far, the reader will already have grasped the principal feature of the food supply situation during the War—the tendency of the effective demand to exceed the ordinary consumption demand, and of the effective supply to fall below the potential supply. The reader is also aware that it was the disorganized state of transport that constantly maintained and intensified these two divergences. In particular, the reduction of the effective below the potential supply had as its basis the hope of further increases of price.

But such a hope could not persist if we assume that the producers had an interest in selling their goods. Hence, whenever the harvest is abundant, we find an increasing market supply of grain and a rapid decline in prices; the producer disposing of a portion of his stocks thereby compels the middleman to follow suit. This was seen in 1915 and should have been true more or less also in 1916. Actually, however, nothing like this took place and prices did not decline. Besides, the growing tightness of the grain market and the market in foodstuffs generally, compelling the authorities to resort to heroic measures to assure the necessary supply, points to some new circumstances arising about the middle of 1916.

Of course, one may say that the producer in 1916 lost his interest in selling, but a bald statement like this explains nothing. The question is precisely why this interest in selling should have been lost. Since goods are sold, not for the sake of selling, but in order to be able to make other purchases, it is obvious that we must seek the key to an understanding of the producer's attitude in the condition of the market in commodities other than foodstuffs.

*Market Conditions in Supplies Other than Foodstuffs.*

This leads us to a consideration of the connection existing between the scarcity of one commodity in the market and that of other commodities. Lack of space unfortunately prevents us from going deeply into an analysis of the relationship between the supply of different commodities, and we must confine ourselves here to the most indispensable statements.

Scarcity of any commodity in the market may produce a scarcity of other commodities in the following cases: (1) when the originally scarce commodity is the indispensable means of production of comparatively plentiful commodities; consequently, in this instance, the induced scarcity of the latter is brought about through the medium of curtailed production, resulting in a dwindling market supply of these goods: (2) when scarce goods are objects of consumption for owners of plentiful goods; this, however, not always, but only when there is a concurrence of certain conditions. (a) It takes place if the scarce articles are not absolutely indispensable and urgently wanted, and may in part even be produced within the establishment of the owner of the plentiful commodities, but are nevertheless the very kind of goods for the purpose of acquiring which the others were to be offered for sale. This point requires no further explanation, for if the scarce commodity were absolutely indispensable to the holder of the abundant commodity, the latter would find himself compelled to seek to obtain the scarce article at all costs. In the end this would entail an increased supply of the abundant goods, so that there would be no induced scarcity. (b) It is also necessary that the plentiful articles sent to market have a consumption value for their owners (still more that they are articles of prime necessity), or, that, being without any such value, they form so insignificant a share of the total production that they can be easily hoarded, provided that they can be kept in good con-



dition for some considerable length of time. This point, again, needs no further explanation. It establishes the fact that only those enterprises which produce abundant goods in the first place for the direct satisfaction of their own wants, and only in the second place for sale in the market, will strive to hold back their supplies from the market (without at the same time curtailing the output), if they cannot find in the market those objects of consumption which, while not absolutely indispensable and urgently needed, yet are the very articles for the purpose of acquiring which the abundant articles were to be sent to market. Indeed, if production of abundant goods were the only business of the purely "acquisitive" kind of enterprise, aiming at profits rather than the direct satisfaction of its wants, the abundant goods would still have to go to market, since, in most cases, they serve as the sources that yield the means of production and labor power. Therefore, it is only when there is a concurrence of (a) and (b) that it is possible for those scarce commodities which are objects of consumption for the proprietors of abundant commodities to cause an induced scarcity of otherwise abundant commodities in the market. This, however, not through the medium of a curtailment of the production of the abundant goods, but through either an increased consumption or hoarding in the producer's establishment itself.

*Disorganization of Commodity Exchange Analyzed.*

The shrinkage of the market supply of goods, not because their production has been arrested, but because their owners have lost interest in selling, owing to the scarcity of other commodities the acquisition of which is the sole purpose of the sale of a portion of the goods in question, is the very thing which, in Russia, is usually referred to as the "disorganization of commodity exchange." Consequently, we may say that essentially this kind of disorganization consists in a falling off of market exchange transactions because the owners of comparatively abundant goods cannot find in the market a desirable equivalent and, being able to dispense with such equivalents for a time, they cease marketing their goods, preferring, under certain conditions, to accumulate stocks.

This induced shrinkage of the supply of plentiful commodities in the market constitutes at the same time the process of divergence between effective and possible supply of such commodities. While the

possible supply remains practically unchanged, there is a progressive reduction of effective supply.

It is easy to see that the concurrence of all these conditions necessary to effect a disorganization of commodity exchange can be expected mainly, if not exclusively, in an agricultural country, where a very large number of small-scale peasant farms produce nearly everything they themselves require and market a mere fraction of their output, in exchange for the products of industry which they must have. In this, moreover, an important part is played by the fact that the peasants frequently buy manufactured goods because of the more perfect finish and peculiar attraction of "city goods," rather than because they may not be able to make similar articles at home.

If manufactured goods become scarce, foodstuffs become so likewise, notwithstanding that these may be produced as much as before. This was the situation that became evident in Russia about the middle of 1916, assuming the specific form of a disruption of the exchange of goods between town and country. The country was unable to find in the town the needed equivalent for its own products and for this reason reduced the market supply of these products far more than it reduced their production. Similar phenomena may occur not only when there is a falling off in the supply of manufactured consumable goods that are not urgently needed, but also when there is a falling off in the supply of such means of production as are not quite indispensable.

Generally speaking, it may be said that the scarcity of agricultural implements in the market could not have deeply affected the production of foodstuffs, since worn-out implements are replaced only gradually. But this scarcity could greatly affect the effective supply, as it prevented the marketing of that grain and those other commodities which used to go to market regularly to enable the farmers to purchase better implements. In this case the lack of the improved implements would not reduce the existing volume of production, but it would impede its further expansion, besides removing the occasion for the sale of such amount of foodstuffs as would have been sold if the improved implements had been available.

Finally, we would invite the reader's attention to the importance of the disorganization of transport as one of the factors underlying the disorganization of commodity exchange. We have already traced

the direct influence of disrupted transport upon the market in food-stuffs. But it may affect the food market also indirectly, operating through markets of other goods.

The fact is that the disorganization of transport influences all products at the same time. This must, in each separate market, cause a relative abundance of local commodities, which it is difficult to dispatch elsewhere, and a diminution in the supply of outside commodities, difficult to convey from other localities; in other words, different commodities may be affected in each separate market. But when the scarce outside commodities serve as the means of production of the local goods, or when they are objects of consumption for the purpose of acquiring which these local goods are sent to market, there will naturally follow a corresponding scarcity of the local goods, either because of curtailment of their production or because of disorganized commodity exchange. If such conditions affect a large number of local markets, the disorganization of transport will result in an unusual shrinkage of the exchange of commodities throughout the country.

As we see, the disorganization of transport has far more serious effects upon the economic life of the nation than might have been imagined from the considerations advanced previously.

### *Was There Any Scarcity of Manufactured Goods?*

Having ascertained the essential characteristics of the disorganization of commodity exchange, we must now consider the question whether there really existed in Russia during the War such a thing as a scarcity of manufactured articles, and, if it did exist, what its nature was: Was it absolute (arrest of industry) or relative (absorption of manufactured goods by the needs of national defense, to the detriment of the ordinary market)? Lack of space prevents us from discussing here at great length the shrinking of the supply of manufactured articles. But we may state that it was undoubtedly merely a relative shrinkage.<sup>1</sup> We shall consider three different branches of industry which are particularly significant for our purpose—metals, textiles, and leather.

<sup>1</sup> For a detailed treatment of the conditions of various industries see Zagorsky, *State Control of Industry in Russia during the War* (Yale University Press, 1928) in this series of the "Economic and Social History of the World War."



While the production of pig iron remained almost unchanged, the industries using this raw material in their manufacturing processes were developing extensively. This points to the complications and difficulties of a technical character that they must have experienced during the War. It may be said that all metal-working industries during the War were devoted to the needs of national defense, particularly after the great retreat of the army in 1915, when an extensive mobilization of industry for war purposes was begun. This was bound to affect the ordinary market in metals and metal products. For our present purpose, it is particularly interesting to consider the manufacture of agricultural implements. We find that in 1913 this branch of industry used about 12 million puds of metal. The amount it used in 1914 and 1915 has not been definitely ascertained. But the statistics of the Council of Congresses of Manufacturers of Agricultural Machinery and Implements are very significant: they show that the output of the thirty-four largest plants in 1915 had shrunk by 78 per cent. The amount of metal used by them in 1916 was 1,863,160 puds (other statistics make it about 2.5 million puds). For 1917 the figures are given as 1,597,640 puds.

It must not be thought that the manufacture of agricultural implements was the only branch of the metal industry that shrank heavily during the War. The output of articles of mass consumption, such as nails, knives, axes, horseshoes, was likewise greatly reduced, vitally affecting the economic life of large groups of the population.

We may now consider the market in textiles, and that in cotton fabrics, in the first place. At the beginning of the War there was a depression in this market: little business was done and prices were low. We shall not discuss here the reasons for it, especially since the situation changed fundamentally soon after the outbreak of the War. Two factors were responsible for the extraordinary boom in the cotton-manufacturing industry: (1) army orders, and (2) increased demands by the peasants. The orders for the army were immense: in December, 1914, and during the first few months of 1915 they amounted to a million pieces (rolls) a month, with coarse fabrics heading the list. The mills began to work from 5 A.M. till 10 P.M., with double wages for overtime work. They found it impossible, nevertheless, to execute all orders, and were obliged to have recourse to the smaller factories (with 100–200 looms), which had

until then stood idle because they had been unable to compete with the lower prices of the large mills. Turning over part of their orders for the army to these smaller establishments, the large firms supplied them at the same time with the necessary yarn.

Needless to say, after this the civilian market was treated with little ceremony. In the first place, the quality of the cloth was lowered and the public was compelled to take without a murmur whatever was sold to them. About the middle of 1915, all stocks being exhausted, the market might expect only what remained for sale from the current output after the army had been provided for.

How large was this balance? Considering that the mills were swamped by army orders, so that these orders amounted to 67.3 per cent of the normal output of the cotton goods industry (in December, 1916, it declined to 56 per cent, but in January, 1917, it was probably about 70 per cent), we are forced to rather pessimistic conclusions regarding the situation in the civilian market, particularly when we bear in mind the real capacity of the industry, reduced on account of the scarcity of yarn. It is safe to say that government orders absorbed 70–80 per cent of the total production.<sup>2</sup>

As for the woolen industry, not only did it fail to meet the demand of the ordinary market, but it could not even satisfy the needs of the Government. The result was that the Government, after taking under control the entire output of the Russian mills, had to import woolen goods from other countries.<sup>3</sup>

The linen and jute industries were similarly affected. The weaving mills could scarcely keep pace with the rapidly increasing government orders, and the spinners were swamped with orders for yarn. In 1915, about 76 per cent of the entire production was for the army. In 1916, there is the interesting fact that, on the first of January, the mere balance of uncompleted orders was almost 79 million arshines, that is, nearly 32 per cent of the annual output of all the factories.<sup>4</sup>

<sup>2</sup> See *Trudi Kommissii po Izuchenyu Sovremennoi Dorogovizni*, issue II, pp. 210, 212, 213, 222 sqq.; also *Polozhenie Tekstilnoi Promishlennosti (The Textile Industry)*, Moscow, 1917, pp. 40, 71 sqq.; also *Narodnoe Khozyaistvo v 1916 Godu*, issue I, pp. 38 sqq.

<sup>3</sup> See *Narodnoe Khozyaistvo v 1916 Godu*, issue I, p. 52; also *Trudi Kommissii po Izuchenyu Sovremennoi Dorogovizni*, issue III, p. 154.

<sup>4</sup> See *Trudi Kommissii po Izuchenyu Sovremennoi Dorogovizni*, issue II, p. 203; also *Narodnoe Khozyaistvo v 1916 Godu*, issue I, p. 68.

In the leather goods industry the situation was even less satisfactory. Scarcely anywhere was the watchword "Everything for the War!" observed as it was in this industry. The needs of the civilian population were relegated to the background, and leather factories of every size and description, even home tanneries, as well as factories and small bootmakers' shops, and the workshops of harness-makers, with only rare exceptions, began to contribute all their output to the needs of the army.<sup>5</sup>

Russian industries thus found themselves engaged almost entirely on work for national defense, while imports from other countries were absolutely inadequate to supply the deficiency felt in the civilian market, the more so as the goods imported were also mostly of a kind needed by the army. There is no foundation whatever for speaking of an arrest of industry in Russia during the War. The scarcity of industrial products was only relative, and was felt chiefly in the civilian market. This is a very important fact to bear in mind, as it confirms a proposition that we have already advanced in an earlier chapter, namely, that the purchasing power of the industrial population was not only maintained, but even enhanced.

*Effects of Disorganization of Commodity Exchange  
on Food Production.*

To elucidate more fully the manner in which the scarcity of manufactured goods influenced the market in foodstuffs, we must also touch, at least in passing, on the question of the effects of such a situation upon food production. This will make it possible to bring out more clearly the influence of the disorganized commodity exchange on the increasing scarcity of food products. First of all, we must see whether agriculture was affected by the shortage of agricultural implements. There is no doubt as to its adverse effect; but it seems slight when compared with other and more ruinous factors, such as scarcity of labor and dwindling resources of live stock. We are inclined to believe that only the owners of large farming establishments must have suffered considerably, for in their case the deterioration of improved machinery made it impossible to continue production on the usual scale, since there was no additional labor to take the place of broken or defective machinery. Generally speaking,

<sup>5</sup> See *Narodnoe Khozyaistvo v 1916 Godu*, issue V-VI, p. 86.



it is scarcely likely that any large proportion of farming implements would have worn out completely in the brief space of two or three years. On the other hand, however, even though we must not exaggerate the importance of a shortage of agricultural machinery, we should reckon with the wear and tear of such equipment, with the difficulties of proper repair, and, lastly, with the total loss of a certain portion of the pre-war stock.

Of course, we have no possibility of weighing, by means of definite figures, the consequences of this phenomenon: the fact is that the reduction of cultivated areas, the decreased yield of crops, and certain other factors, depended not only upon the condition of farming implements, but also upon a number of far more important factors. Agriculture in Russia during the War had to contend with other difficulties, as, for instance, the scarcity of binder-twine, lubricants, iron for tires, sacks, barrels, boards, fertilizers, etc. A cultivation that suffered greatly because of the shortage of fertilizers was that of the sugar beet. In 1917, for instance, the plantations needed up to 11 million puds of artificial fertilizers (superphosphates, etc.), while all the Russian works together were unable to produce more than 6 million puds.

In view of all these considerations we believe that the scarcity of agricultural machinery resulted, not so much in a reduced production, as in a reduced market supply of foodstuffs, partly because commodities that had usually served to stimulate sales of food products had disappeared from the market. When we consider that the total value of farming implements sold annually in Russia was 100–120 million rubles, we see that, in order to purchase all these implements, more than 100 million puds of grain alone had to be offered for sale, not to mention other foodstuffs.

The scarcity of manufactured goods strongly affected not only agriculture, but also the industries manufacturing food products, and those manufacturing sugar and flour most of all. Concerning the sugar factories, M. Isenberg, who has a thorough knowledge of the business writes:

Particularly acute was the problem of the repair of those machines and mechanical devices which had been produced exclusively abroad or which required raw materials from abroad. Among such machines and devices should be mentioned steam and electric turbines, spare

parts for them, steam-boilers and the material to manufacture them, and a number of minor articles, such as files, etc.<sup>6</sup>

A similar condition was observed in the flour industry, although a great lack of indispensable articles of equipment was seldom felt in this industry before 1916. The outstanding complaint of the millers referred rather to the disruption of transport, which interfered with regular deliveries of grain and fuel. But in 1916 the situation changes and the millers represented in the Central Flour Bureau begin to complain about deficiencies in equipment, especially after the technical reorganization of the industry (that is, the restriction of the output of wheat flour to only three grades). The scarcity of sacks also caused serious trouble to both the sugar and flour industries. This shortage was causing much trouble to the Government itself.

*Effect of Shortage of Manufactured Goods on Supply  
of Farm Produce.*

However, the effect of the scarcity of manufactured goods upon food production is insignificant—at least so far as the products of agriculture are concerned—as compared with the direct effect produced by this scarcity upon the market supply of farm produce: it was responsible for the reduction of this supply even though production and, consequently, potential supply remained unaffected. The devastating effect produced in this respect by the scarcity of manufactured goods was due to: (1) the peculiar nature of the peasant economy and (2) the immense relative importance of peasant produce in the aggregate mass, that is, in produce sent to the market, as well as not yet marketed, but already prepared.

Respecting point one we may state that the peasant farmer strives to produce with the resources of his own establishment everything he needs for the direct satisfaction of his wants, and the result is that only a slight proportion of his output finds its way to the market, to become commodities of exchange. It is, therefore, also possible to say that peasant products have a low commodity value. Furthermore, in so far as products are sold by the peasant at all, they are sold, not to obtain in return the necessary power and industrial means of production, but in order to be able to pay taxes,

<sup>6</sup> See *Narodnoe Khozyaistvo v 1916 Godu*, issue V-VI, p. 63.

buy manufactured goods for consumption, household necessities, and improved means of production.

From this we may draw the following conclusions: (1) Scarcity of manufactured goods affects comparatively little the current output of the peasant farm, resulting merely in the disappearance of the initial stimulus which induced the peasant to market his produce, and (2) the low commodity value of peasant produce makes it very easy to hoard supplies, since the average peasant establishment requires years to accumulate a supply of grain that would equal even a single average yearly harvest.

All these factors go to explain why the scarcity of manufactured goods tended to make the peasants hesitate to sell, without at the same time curtailing production (in so far as this depended upon any human agency).

Taken by itself, this fact would not have proved a catastrophe, had the relative importance of peasant produce in the general mass of both produced and marketed goods been small. But in reality the very opposite was true. Thus, for instance, the cereals harvested on peasant farms averaged about 87.7 per cent of the total; and, what is even more important, notwithstanding their slight commodity value, such cereals made up the overwhelming bulk of all commodity grain as a whole (that is, of grain actually marketed), amounting to 78.5 per cent.<sup>7</sup>

This is why the cereals exported, as well as those supplied to the cities, before the War, came chiefly from the farms of the peasantry. During the War, the provisioning of the army and the industrial population had to be based upon such grain. We thus perceive the danger that threatened the army, the railways, the cities, and the industries engaged in work for national defense owing to the refusal of the peasants to market their grain; especially since a withholding of foodstuffs due to a disorganized commodity exchange differs radically from a withholding caused by an advance in prices. The latter has its source in the desire to obtain larger profits than would result from immediate selling. In other words, it becomes a

<sup>7</sup> The reason why the percentage of peasant grain in the total volume of grain marketed is smaller than in the total of all grain actually produced in the country is that grain produced on the non-peasant farms has a higher commodity value. Whereas the peasantry send to market only about one-third of the four principal cereals they produce, the non-peasant establishments market about two-thirds of their output.



matter of choice, not between profit and loss, but between larger and smaller profits. It is evident that, psychologically considered, this kind of failure to market goods cannot be as persistent as it is where the owner refrains from marketing because of a lack of interest in selling and a desire to avoid a manifest loss. Yet it was precisely this latter kind which was observed during the disorganization of commodity exchange.

Assuming even that prices of scarce manufactured goods are fixed by the Government at such a level as to assure a ratio of exchange between these goods and the products of the farm such as existed in times of peace, we are still facing, when marketing the produce of the farm, a very strong likelihood of loss, if not an inevitable loss. This, because prices have real significance only so long as any buyer prepared to pay them is able at the same time to find the goods he is looking for. If he cannot obtain these, or if it involves a long and painful search, and if it becomes a matter of sheer luck and accident whether he finds any such goods, then the problem of prices also becomes one of minor importance. The peasant who had sold grain that represented to him a consumption value and the most reliable resource upon which to lean in an emergency, found himself without his grain and without any manufactured goods. The result was that his establishment could not be improved, his consumption had to fall below its normal level, while his expenditure (in terms of produce) remained the same as before. No doubt, he received money for the goods he had marketed. But of what use was that to him so long as he could not obtain indispensable articles with it? Moreover, in view of a general tendency on the part of commodities to rise steadily in price (and this was true even of commodities subject to official price control), and when there was no certainty about future prices and market conditions, the hoarding of money became a very risky, or even clearly losing, venture.

Under conditions such as these, and when there was a possibility of getting along for some time without the products of the manufacturing industries, or even a possibility of making such articles at home (homespun, etc.), it was easy for the peasants to turn their back upon the city market. If a man wanted foodstuffs, the peasant was able to demand in return goods that were needed on his farm, instead of money. In other words, a tendency toward a restoration of barter might appear among producers, and the result would then

be that the search for the manufactured articles would be left to those who were in need of foodstuffs.

Matters are not better when prices of industrial produce are not officially regulated and rise more strongly than prices of foodstuffs. It is patent that, even though this does not increase the quantity of manufactured goods, the chances of obtaining any such goods are shifted in favor of the wealthier peasants. Whoever is unable to give up for the previous quantity of manufactured goods a considerably larger quantity of his own goods drops out of the race, and the best thing that he can do in these circumstances is to wait patiently for better days. But even for those who are able to obtain manufactured goods, the fact that the exchange ratio of farm produce has been altered disadvantageously cannot serve as an encouragement to sell. It is, of course, exceedingly difficult to determine precisely under which conditions more grain would be marketed (there being a scarcity of manufactured goods)—when there is an artificial maintenance of the peace-time ratio of exchange between industrial and agricultural products, or when this ratio changes to the disadvantage of the agricultural produce. In other words, would more grain be sold if the opportunity of getting manufactured goods were equally small for all the peasants, or if the opportunity were relatively good, but only for a limited section of the rural population? In our opinion, it might be that less grain would go to the market under the former conditions.

Whatever the true facts may be, one thing is certain: without overcoming the scarcity in manufactured goods it is impossible to induce the peasants to sell their produce, for without this there is no chance of removing the primary consequence of that scarcity—the uselessness of money precisely as regards those things which the peasants want to purchase.<sup>8</sup> Yet, in spite of this, grain was being sold, and this at a time when the scarcity and dearness of industrial products were already fully established. It was only toward the close of 1916 that the disorganization of commodity exchange began to make itself felt and that the public commenced to speak of it quite plainly.

<sup>8</sup> This is why the decisions adopted in August, 1916, by the congress of food supply commissioners were fundamentally fallacious. Taking it for granted that the root of the evil was in the rising prices of manufactured products, the congress insisted upon official price regulation for such products.

*Factors Counterbalancing Scarcity of Foodstuffs Caused by  
Scarcity of Manufactured Products.*

There were several causes which counterbalanced the scarcity of foodstuffs in the market, brought about by the shortage of industrial products. First, the existence of large non-peasant farming establishments producing much more than they themselves required and compelled for this reason to depend in any circumstances on a large market business. It is true that the output of such establishments suffered much from the shortage of labor; still, so far as they kept up their work, they were reservoirs from which it was easier to obtain grain than from other sources. Thus, immediately after the outbreak of the March Revolution in 1917, when a grave food crisis menaced the army at the front, the Food Supply Commission of the Provisional Committee of the State Duma telegraphed to different parts of the country an order for the immediate requisition of grain from the big landowners and tenant-farmers having an acreage of not less than 50 deciatines, as well as from the stocks held by business firms and banks.

The second counterbalancing factor was the existence of an organized machinery of government remaining intact even after the March Revolution and able to collect taxes. Whatever the taxes, they had to be paid, and in the absence of any other means, the person in possession of supplies was compelled to sell a portion of them for the payment of taxes.

The third factor was the fact that, although there was a very considerable scarcity of manufactured goods, some were still to be found in the market. When, during the latter half of 1916, their prices rose higher, outstripping the advance in the price of grain, these goods became available, it is true, to a relatively narrow circle of purchasers; but there can be no doubt that buyers were still to be found among the peasantry. In acquiring manufactured goods, these people were compelled to market larger amounts of grain than previously for the same quantity of manufactured goods, and this might, to a certain extent, compensate for the withdrawal of the average peasant from the market.

In the fourth place—and this is the most important factor counterbalancing the scarcity of marketed grain—there was the fact that money still existed and could not fail to exert its traditionally



powerful effect. Money is a means, and not an end, sought by all parties to an act of exchange. Since money is not merely a means, in the ordinary sense, but a universally accepted and unconditional means, the possession of money becomes equivalent to possession of objects that have an objective value, since the money may at any time be converted into terms of such objects. In this case the distance separating the means from the end is apparently removed, and, by a confusion of thought easily understood, the means seems to acquire the character of the end itself.

This accounts for the strong hold that money has upon men. But, given certain conditions, the real nature of money is clearly revealed, and then money loses a great deal of its usual power and attraction. The conditions are the following:

(1) The steady depreciation of money, making every delay in the spending of it fatal.

(2) The disorganization of commodity exchange on a large scale. The scarcity, and even the complete disappearance, of a certain group of commodities signifies at the same time either the total uselessness of money or, at best, such a decline of its purchasing power, with respect to that group of commodities, that it ceases to be, for all or many of those persons who needed and still need such commodities, a medium of any use whatever. Hence those dealers who carry their goods to the market exclusively for the purpose of acquiring, through the instrumentality of money, scarce commodities, find themselves in a dilemma: they must either refuse to sell their goods, that is, keep on accumulating stocks, or, if they sell, they will be accumulating worthless money. A third possibility—that of selling their goods and buying the goods they require—does not exist. It should be said that hoarding of money, at a time when goods are scarce and future market conditions uncertain, and while there is a visible upward trend in all prices, is a very hazardous proceeding. This is why the rural population of Russia strove, during the War, to avoid selling and, in extreme cases, endeavored to revive the system of barter. The result was that money, after losing its prestige in the eyes of the peasantry, lost its character of universal and unconditional currency in the cities also. Money thus became, if not a “despised metal,” at least “contemptible paper,” and its power was completely destroyed.

In conclusion we must say that the condition mentioned first,

that is, a steady, general currency depreciation, may take its course quite independently, without producing the second condition, that is, disorganization of commodity exchange; but the latter invariably gives rise to the former. Indeed, if there is a disorganization of commodity exchange, this of itself not only destroys the power of money, but, leading to a general scarcity of goods in the market, it tends to raise the general level of prices; in other words, it depreciates the value of money. The process of undermining the power of money becomes most acute when those causes which are directly responsible for the currency depreciation combine with those causes which lie at the bottom of the disorganization of the commodity exchange. In this instance the entire process is stimulated from three different sides: (1) The disorganization of the commodity exchange *per se*; (2) the depreciation of currency resulting from this kind of disorganization; and (3) independent factors producing depreciation of currency.

This process is, however, retarded thanks to the fact that the power of money cannot be destroyed at one stroke. For a considerable time money retains the traditional attraction of an end in itself. Hence the causes responsible for a disorganization of the commodity exchange may for a long time be kept in check and counteracted by the influence of money power. This is due to the fact that the owners of plentiful goods are still for some time satisfied to accept money as a fair equivalent for their goods, even if they may be unable to purchase with this money any goods they need for themselves. This is, then, an accumulation of money. Thanks to the tinge of self-sufficiency that money has acquired during the preceding period, it goes on acting as a substitute, so to speak, for the absent commodities, thus concealing the void that has really been forming in the market. As long as this continues, the plentiful commodities are sent to the market as usual, and even if they are not offered for sale as abundantly as before, the deficiency will be far smaller than the deficiency of the scarce commodities. Outwardly, at any rate, the market situation will appear quite promising, since it will lead people to believe that there is no connection between the market supply of plentiful and scarce commodities.

Such a situation, however, cannot last indefinitely. The moment must arrive when a continued hoarding of money becomes absurd. This moment may be deferred if there is a confident belief that the

scarcity of goods in question will not last long. On the other hand, however, such a moment may be hastened very effectively by a number of contributory factors, as, for instance, a general currency depreciation. The hoarding of money then becomes more foolish than ever and, consequently, the selling of goods, likewise, becomes foolish, if its sole object is the accumulation of money. The plentiful commodities now commence to disappear from the market, that is to say, the process which we have designated as disorganization of commodity exchange and which results in a progressive shrinking, or tightness, of the commodity market, comes into play. This is not without its effect on the further depreciation of the currency (as explained previously), and this, in turn, accelerates and intensifies the disorganization of commodity exchange, and so on.

*Money Hoarding by Peasants and Its Effects.*

Turning back again to our consideration of the market in food-stuffs during the War, we find that in fact the disorganization of the commodity exchange did not occur for some considerable time; or, to be more exact, it was not made manifest, notwithstanding that manufactured goods were already getting scarce, because peasants were still content to go on hoarding money. To estimate accurately the sums which thus found their way into the hiding places of the peasantry is not easy. But a rough estimate would seem to indicate that something like three thousand million rubles had been swallowed up in this manner by January 1, 1917. Down to the middle of 1916 money still retained most of its prestige, notwithstanding its continuous depreciation; after that, however, there seemed to be a great change in the situation. At any rate, speaking at the conference of the commissioners of the Special Council on Food Supply on August 25, 1916, M. Neklyudov, commissioner for the province of Kharkov declared, without the statement being challenged, that "I have seen the masses of our peasantry who have rye from last year refusing to consign and sell irrespective of price. They say that rye has real value, while money is rapidly depreciating. Similar opinions I have heard everywhere."

As the peasants continued for a long time, in spite of a serious shortage of manufactured goods, to accept money in exchange for their products, we are justified in the belief that the advance in food prices, particularly those of cereals, must have failed to keep pace



with the advance of prices of manufactured goods, at least until the early part of 1917. To verify this assumption, let us compare the movement of prices quoted by the produce-exchanges (of which we have numerous and complete data) for the four principal cereals in the production regions (since it is important for us to consider those prices which come closest to the food producers) with price movements in manufactured goods.

It is unfortunate that no systematic tabulation of prices was made for finished manufactured goods. The available quotations are chiefly for raw materials and semi-manufactured goods. But on the other hand we have the fact that the market in raw materials and semi-manufactured goods very early came under the influence of government control, while nearly all of them were placed, by the distributing organs of the State, at the disposal of establishments working for national defense, at prices specially fixed. It is obvious that these prices, even though reflecting those of the finished products, could only do so where those products came under the control of the State. It is therefore absolutely impossible to judge from raw material quotations the price movement of finished products, in so far as these may still have figured in the free market. Prices of iron, in particular, will probably be found the least useful for our purpose.

However, in cases where we do not possess information concerning finished products we are confronted with no less difficulty. In the first place, certain classes of commodities were excluded altogether from the free market, being used entirely for the needs of national defense, at fixed prices. If some part of such business was still conducted on a competitive basis, the government prices nevertheless ranked first and usually figured in the price lists. Furthermore, it becomes impossible to ascertain the real prices after price regulation has been formally extended to all products sold by factories and dealers.

With all these reservations, we shall now present the figures regarding the movement of prices of iron, textiles, and grain (as the principal foodstuff). Tables 52 and 53 give an idea of the questions involved.<sup>9</sup>

<sup>9</sup> The following sources have been used in the preparation of these tables: *Narodnoe Khozyaistvo v 1916 Godu*, issue VII, pp. 266-267; *Polozhenie Tekstilnoi Promishlennosti*, issue I, pp. 32-35, 50.

TABLE 52  
INDEX NUMBERS OF PRICES OF IRON AND GRAIN

Dates	Corrugated iron					Merchant iron Petrograd (basic price)    Kharkov (basic price)	General index number for iron	General index number for the four principal cereals in production areas
	Ekaterinburg Grade 1		Donets Basin "Southern"	Petrograd "Siberian" (basic price)				
	11 feet	8 feet	10 feet					
1913, average	100	100	100	100	100	100	100	100
1914, June	115.5	112.8	103.7	104.0	102.5	104.0	107.1	102.1
December	125.6	121.6	103.7	133.0	109.1	107.3	116.7	111.0
1915, January	125.6	121.6	103.7	133.0	109.1	107.3	116.7	128.7
December	193.4	176.9	120.0	199.1	149.3	146.6	164.2	154.6
1916, January	209.0	190.7	174.4	199.1	154.5	146.6	179.1	159.4
February	229.1	200.4	174.4	204.8	168.8	162.0	189.9	165.2
March	229.1	200.4	174.4	216.8	168.8	170.0	193.2	170.6
April	229.1	200.4	186.0	193.8	170.7	170.0	191.6	168.9
May	229.1	200.4	209.3	176.1	172.0	170.0	192.8	170.0
June	229.1	200.4	205.6	176.1	179.2	170.0	193.4	173.5
July	229.1	200.4	205.6	176.1	201.3	180.0	198.7	177.5

TABLE 53  
INDEX NUMBERS OF PRICES OF TEXTILES AND GRAIN

Dates	Textiles				General index numbers for light and heavy textiles	General index numbers for the four principal cereals in production areas
	Ivanov-Voznesensk Printed calico	Satin	Moscow Light textiles	Heavy textiles		
1914, June	100	100	100	100	100	100
1915, June	148.2	140.5	145.7	153.5	149.6	137.6
July	163.6	148.4	....	....	....	126.1
September	170.9	154.3	149.6 <sup>10</sup>	155.7 <sup>10</sup>	152.7 <sup>10</sup>	124.5
1916, January	199.0	160.1	....	....	....	156.1
June	279.1	215.7	....	....	....	169.9
July	297.1	215.7	242.3	235.9	239.1	173.8
September	318.9	233.3	....	....	....	217.2

In studying these tables, the reader should remember that the prices of iron here quoted are, in so far as the ordinary buyer is concerned, to a large extent fictitious. Far more correct is the ratio between the movement of prices of calico (the principal cloth sold to the peasants) and of grain, since the calico quotations were obtained by means of questionnaires and were carefully verified. The

<sup>10</sup> August, 1915.

picture will become even clearer if we consider the rise of retail prices of textiles. "Retail prices not only in the provinces, but also in Moscow, advanced much farther than factory prices, not infrequently twice as much and more," we read in the report of an investigator of the conditions in the textile market at the end of 1916.

It is interesting also to consider here a few figures showing the rising price of grain and certain other commodities at Moscow about the middle of 1916, as compared with prices at the beginning of the War:<sup>11</sup>

TABLE 54  
INDEX NUMBERS OF PRICES IN MOSCOW IN 1916

(Prices in July, 1914 = 100)

<i>Goods</i>	<i>Middle of 1916</i>
Rye bread	147
Wheat bread	143
Rye flour	195
Wheat flour	169
Fuel	224
Kerosene and candles	210
Matches	500
Textiles	262
Footwear	334

The figures contained in the above table, taken by themselves, do not furnish sufficient ground for speaking of a catastrophic shortage of manufactured goods or, at least, of a catastrophic advance in the price of manufactured goods in comparison with the price of grain. But when we turn from the semifictitious prices and observe the real prices that the peasants had to pay for everything they bought, the actual situation appears at once and we see the acuteness of the crisis which the scarcity and high cost of manufactured goods produced in the food market. We are unable to give a detailed survey of the problem here but shall quote, as an illustration, one instance.

<sup>11</sup> See *Dvizhenie Tsen za Dva Goda Voini* (Movement of Prices during Two Years of the War), published by the Union of Towns, Petrograd, 1916, pp. 82-83; also Pervushin, *Denezhnoe Obrashchenie i Kredit* (Monetary Circulation and Credit), Moscow-Petrograd, 1922, p. 82.



In the report of the chairman of the Simbirsk provincial zemstvo board, dated August 4, 1916, we read:

In the Middle Volga provinces, which include the province of Simbirsk, prices of the principal kinds of grain . . . over the entire period of the War approximately doubled. Calico, according to the June reports of the correspondents of the statistical division of the provincial zemstvo board, increased in price during the same period by 336 per cent. Before the War the peasants of the province of Simbirsk used to pay for the ordinary grades of calico 14 copecks per arshine, as against the present price of 47 copecks; "bobrik" [rough woolen cloth] cost 80 copecks before the War, whereas its present price is 6 to 7 rubles; a pair of leather boots which used to cost 7 rubles is now worth 25 or 30 rubles; merchant iron which cost 2.5 rubles before the War now costs 12 rubles; lattice nails for roofing have risen from 3.9-5.5 to 32 rubles and even higher. There is no doubt that the same thing will recur in the future if the field of operation of fixed prices remains limited as heretofore.<sup>12</sup>

Similar reports were furnished concerning a large number of other provinces.<sup>13</sup>

The strong rise in the price of grain in the autumn of 1916 was already in part a result of the scarcity and dearness of manufactured goods. No doubt, it was not due exclusively to this circumstance, but it certainly was so in a considerable measure. Producers began more and more to refrain from selling, seeing the futility of it. Hence, the rising of grain prices and the difficulties of supply already mentioned. When we take all this into consideration we are forced to admit the correctness of the statements made by M. Strukov in the Special Council on Food Supply:

It is true that the peasants have a great deal of money, but it cannot be said that they are getting rich. This would be a superficial conclusion. The peasants are not getting rich but are spending their capital . . . as a result, they will get a little cheap money, but there will be no longer any real capital because, with existing prices, the peasant has no way of exchanging this money for goods he does not produce on his farm.<sup>14</sup>

<sup>12</sup> *Materialy po Voprosu ob Ustanovlenii Tverdikh Tsen na Khlebnii Produkty do Urozhaya 1917 Goda*, Part II, p. 191.

<sup>13</sup> *Ibid.*, Part II, pp. 23, 55, 83, 102, 191, 202, 205, 209, 223, 224, 245, 251, 258, 263; Part III, pp. 6, 17, 18, 24, 58, 93, 101, 123, 151.

<sup>14</sup> *Ibid.*, Part III, p. 114.

*Conclusion.*

The presence of all the symptoms of a disorganization of commodity exchange seems to be fully established by the discussion in the earlier part of this chapter. People on the spot might have erred in details; the general picture, however, which they presented could not have been false. Their statements are too unanimous to be mistaken and they give too many examples of a similar nature, in spite of the fact that their reports came from different parts of the country, often thousands of miles apart. Such was the situation about the middle of 1916.

In 1917 matters became much worse. Persons closely connected with the administration of the food supply had to listen to many complaints from the chairman of food supply committees concerning the difficulties of collecting grain supplies, owing to the scarcity of manufactured goods. Numerous telegrams were received from various localities somewhat to this effect: "There is grain. We can collect such and such quantities [usually not much]. If textiles, iron, and other articles were sent, collections could be doubled and even trebled." The Ministry of Food Supply established by the Provisional Government in the place of the Special Council on Food Supply had even a regular department, the object of which was to furnish the population with manufactured goods.<sup>15</sup> But it failed to obtain any important results. We regret we have no reliable data (there seem to have been none in existence at all) on the movement of prices of industrial products in 1917, especially for localities outside the manufacturing centers. Moreover, the practice of regulating prices had become so general that it was now almost impossible to rely upon the official figures. For Moscow and the central region, the industrial center of the country, we are in a position to give the following figures for August–November, 1917: The price of gingham (*mitkal*) of 18 vershok<sup>16</sup> was 1,592 per cent above the price of 1914; the price of 16-vershok gingham was 1,408 per cent higher; leather boots were 1,000 per cent higher; corrugated iron was 618 per cent higher, and so on.

It would be interesting to discover what the prices were in the rural districts, far away from the large centers. In all probability

<sup>15</sup> Concerning the achievements of the Ministry in this field see Kon-dratév, *op. cit.*, pp. 118–119.

<sup>16</sup> One vershok = 1.75 inches.

there were no regular prices at all at those places, for the very simple reason that they no longer had any goods. It is scarcely to be wondered at, in these circumstances, that there should have been a serious crisis in the food supply and that prices should have mounted at a catastrophic rate. With the power of money destroyed and with offers of grain by producers greatly reduced, the prices of grain might even acquire a tendency to outstrip the prices of manufactured goods, since, so far as grain was concerned, we were confronted with scarcity affecting a most indispensable article with a highly inelastic demand.

In the disorganization of commodity exchange we have found still another factor forcing the effective supply to shrink faster than the potential supply. The result was that the tension between effective demand and effective supply kept on increasing and prices rose irresistibly.

It seems to us that it is precisely to the disorganization of commodity exchange that we must attribute a considerable share of the responsibility for the fact that, from 1916 onward, the usual autumnal decline of grain prices almost entirely disappears. But, of course, there was also the contributing factor of the poor harvests of 1916 and 1917. With an available supply of about one thousand million puds of grain (we deliberately minimize the actual figures), there was a strong contraction of the grain market, in response to the still stronger contraction of the market in manufactured goods.



## CHAPTER XI

### THE INFLUENCE OF PAPER CURRENCY UPON THE MARKET IN FOODSTUFFS

#### *Growth of Money Resources.<sup>1</sup>*

THE statement of the main factors in the movement of prices outlined in previous chapters would not be complete if we did not try to answer the further question of what caused the increase in monetary means of consumption among the population and the abundant supply of money devoted to speculative business.

In the preceding pages we have studied the machinery of the advance of prices, and it has been made clear that this advance would have been impossible, at any rate to the extent to which it actually occurred, if the consumers of food produce had not possessed increased amounts of cash. It is true, the fact alone that expenditure on liquor was eliminated from the budget of the masses made it possible to devote the additional funds to the purchase of food: this, however, under certain conditions, became merely a payment of higher prices and did not result in any increase in the quantity of produce purchased.

In addition, retrenchment in consumption or postponement of consumption of a great deal of produce other than foodstuffs would also tend to make funds available for the purchase of food produce. It is difficult, however, to believe that this can have made it possible for prices to rise as high as they did. As a matter of fact, we have seen the monetary income of large sections of the community increased. At first sight this may seem strange, since the economic activities of Russia were evidently in full decline. At all events, a process of slackening and even complete stagnation of work in other fields accompanied the increased activity devoted to national defense. And yet, if we were to judge by the increase of money earnings, we should obtain a picture of general prosperity.

Let us now consider the problem more closely. We find, in the

<sup>1</sup> See Michelson, Apostol, and Bernatzky, *Russian Public Finance during the War* (Yale University Press, 1928) in this series of the *Economic and Social History of the World War*.

first place, that the growth of the monetary resources of the peasantry was due to the following causes: (1) the elimination of expenditure on liquor, (2) government allowances to soldiers' families, (3) high wages for labor, (4) earnings for horses and wagons furnished to carry government freight, and (5) the rising price of foodstuffs.

The next question we have to ask is where the Treasury obtained the means of meeting this new expenditure. Had these means been obtained by taxation or loans, the increase in the monetary resources of the peasantry would have led to a decrease in those of other classes. Moreover, in so far as the peasants themselves were taxpayers, the whole operation would, to some extent, have amounted simply to the transfer of certain sums of money from one pocket to another within the peasant class itself. But in fact nearly everybody was apparently growing richer. We have also to consider that the higher wages paid for farm labor were made possible by the high prices of farm produce, for it is obvious that the farmers would not have been able to pay these extremely high wages to their laborers if they had not been able to sell their goods at higher prices.

In this way we see that the increased earnings of the farmers were due to the advance in the prices of food products. The question, however, is: whence came this advance, or, to be more exact, where did the money come from to pay these enhanced prices? It is plain that the source must be looked for primarily in the increased earnings and resources of those consumers who present a visible demand for foodstuffs. These were the Government and the various classes of the urban and partly also the rural population. Consequently, the question becomes once more: what were the causes of the increase in their monetary resources?

As regards the Government and its resources we repeat here what we have already said, namely, that these resources could not be obtained entirely from taxation and loans, as this would undoubtedly have meant merely the transfer of the funds circulating in the country and would therefore have weakened the position in the market of other consumers. In particular, inasmuch as taxes would have to be paid by the peasants, high food prices would mean simply a restitution of moneys taken from them previously, even though, of course, only in part. If, however, we assume that taxes were col-

lected only from the urban population (which is not the case) the effect would have been their complete destitution. In reality, the urban population, with the exception of certain groups, increased its earnings greatly, as may be seen from the growth of bank deposits, savings accounts, etc.

We must now consider the question of the origin of this prosperity of the urban population. The answer is that it might be derived either from the higher remuneration of the services of a certain part of it or from the higher prices of goods produced. However, increased remuneration of services depended either directly on the Government (salaries of officials, pay of army officers, etc.) or upon the rise in prices of industrial produce, since persons selling their labor to manufacturers might receive higher wages either because prices of manufactured goods were rising or because they could easily be increased. The earnings of business men depended upon the same factor.

This leads us to the question: who precisely was the buyer of manufactured goods? The answer is, again, the Government. All roads lead to Rome: The increase of the money income and resources of the masses can ultimately be traced back to the financial power of the State which, strangely enough, had grown during the War. As a matter of fact, the monetary resources of the peasantry kept on increasing either because of direct payments received from the Government, or thanks to the indirect influence of the Government upon the demand from persons who had no relation to food production (increase in the salaries of civil service employees and army officers, purchases of manufactured goods, etc.).

The ultimate result was that these larger money resources among the peasants made them more or less independent of market conditions, permitting them either to sell or to refuse to sell as they saw fit. As long as the farmers still had an interest in selling their food produce, the refusal to sell was due to the rise of prices of agricultural produce and, under certain conditions, it could easily have been overcome, especially so long as there was in the market an abundant supply of manufactured goods required by the peasants. The peasants used their monetary resources to buy the goods they needed and thereby, that is to say, by driving the price of such goods upward, they restored to the city a certain portion of the money that they had previously obtained. When the market in



manufactured goods began to shrink, the peasants, as we have seen, did not immediately stop selling their produce, but remained content to accumulate savings. During this period the rural districts simply became a vast reservoir into which thousands upon thousands of rubles kept pouring and where they were evidently lost to circulation.

The increased monetary resources of the urban population permitted it to maintain its demand for food produce at the pre-war level and even higher. Where supply could not keep pace with demand, the demand of the urban population merely tended to advance prices and could not be covered in its entirety. The increased money earnings also resulted in heavier bank deposits, savings accounts, etc. It was on the basis of these freely available cash resources that speculation and profiteering were able to develop.

Such was the cycle of the money circulation that started from the Treasury. But the question still remains as to where the Government obtained such an abundant supply of money. We have already pointed out that it could not have been collected in taxes and loans.

It appears clearly that the State must have been in possession of some special and abundant sources of revenue. The reader will have guessed, no doubt, that it was simply a matter of the issue of paper currency. This is precisely that factor in the movement of prices which we still needed in order to complete our analysis of the machinery by which prices were determined in the market in food-stuffs during the War.

### *Issue of Paper Money.*

The issue of paper money creates a new demand for goods and services, since the Government uses it to cover the enormous expenses caused by the War. We may even go so far as to say that prices are rising not because paper currency is being issued, but because a new demand appears in the market, and this demand would have a tendency to raise the prices even if it were not accompanied by the issue of paper currency. In the course of the War it was frequently emphasized that the issue of paper currency was merely an inevitable result of the advance of prices caused by an increased demand. In reality, however, the term demand denoted here merely the need and the desire to expand existing demand. It goes without saying that the mere desire to buy and use more goods cannot possibly

produce any tangible effect on prices; in order to be able to affect prices, the customer must also have more money than usual. We thus see that only that kind of demand which represents a combination of the desire to buy more than usual and the money which makes it possible to realize such a desire may be considered as a demand capable of affecting prices.

Ordinarily, demand involves, for each party to a business transaction, as a preliminary condition, the selling of his services or goods in the market. For the Treasury, moreover, demand may involve the obtaining of funds by means of taxation. Lastly, a basis for demand may be created by credit operations of various kinds.

During the War the State was unable to obtain the whole of its indispensable funds by the above means. Accordingly, it set the printing press to work to issue paper currency.

The Government, striving to satisfy its needs by printing additional money, appeared in the market with a new demand for goods that it required. This, of course, could not at once increase the quantity of such goods, and the Government was therefore forced to compete with the demand of the ordinary consumer. Having control, however, of the printing press and being thus in a position to increase its output of money, the Government succeeded in eliminating its competitors by paying higher prices. The ordinary consumers could not keep up with the Government in this respect, being definitely limited in their resources, and they were forced to leave the market. In this way the Government obtained control of whatever goods it needed. At the same time, owing to the rise of prices, money depreciated in value so far as such goods were concerned, and there was an increase in the money earnings of the persons selling them. This stimulated production of such goods, in so far as objective reasons might favor it, causing a transfer of available capital to the corresponding branches of business. The further expansion of production naturally required additional labor as well as additional means of production. The increased demand for the one as well as the other tended to raise their prices and thereby depreciated the value of the money in relation to these also; it moreover resulted in an increase in the income of a new group of persons; and so on.

Ultimately, high prices affected an ever increasing number of commodities and consequently depreciated currency. The depreciation of the ruble weakened the position of the Government in the

market and compelled it to increase the issue of paper money. The serious consequences of these ceaseless changes in the purchasing power of the ruble compelled the Government to seek new ways of satisfying its needs. Making use of its legislative powers, the Government attempted to exclude forcibly certain commodities from private transactions, either by prohibiting their sale or by determining the amount of such goods to be sold in the open market. Besides, the Government could prohibit the manufacture of this or that particular commodity so as to preserve raw material for whatever other purpose it might have in view. Finally, it could take complete control of all supplies of raw material.

The Government was also in a position to pay for the goods it needed, not the prices resulting from the free play of supply and demand, but prices fixed definitely on the basis of cost of production. Of course, in so far as the elements of cost of production kept fluctuating, and in so far as it was impossible to regulate and fix the prices of every kind of produce and service, one could not do away entirely with changes in the cost of production and, consequently, to stop the issue of additional paper money. Still, all these measures helped considerably to render the position of the Treasury more tolerable.

In conclusion, we must draw attention to another process, namely, a declining rate of foreign exchange, going hand in hand with the increase in the issue of paper currency and the decline in the purchasing power of money. This process was due to the extremely unfavorable trade balance of Russia. The deficit of this trade balance in 1915 amounted to about 700 million rubles and rose in 1916 and 1917 to nearly 2,000 million rubles. As might have been expected, no parallelism between the change in the purchasing power of the ruble in the home market and the depreciation of the ruble in terms of foreign currencies could be observed. On the contrary, during the War the divergence between the movements of the purchasing power of the ruble and of its value in terms of foreign currencies was especially great. Thus, while we find a great increase in the total volume of paper money during the War, it was comparatively slight in the course of the first two years. A serious increase in the issue of currency set in only during the period of the Provisional Government.



*Effects of Inflation upon the Market of Foodstuffs.*

From what has been stated above, it will be easy to understand how the issue of paper money affected the market and the prices of foodstuffs. This effect might be either direct or indirect. The issue of paper money operated directly in those cases where the State itself was a buyer. It operated indirectly, first, when the Government had to buy horses and harness from the peasantry and pay allowances to soldiers' families: all these payments exerted indirect influence on the market in foodstuffs, strengthening the position of the peasants when selling their goods. Secondly, when the Government had to buy manufactured goods, increase the salaries of employees and army officers, and pay allowances to soldiers' families in the cities. All these payments affected the incomes of the masses either directly or indirectly, and they were reflected in the visible demand for food products.

One cardinal question arises in this connection: Is it possible to explain the rise in prices of food produce solely by the issues of paper currency? And, if it is not possible to do so, what is the relation of the issue of paper currency to those causes of high prices which we have considered above?

It seems to follow from our previous remarks that the mere issue of paper money cannot alone explain the movement of prices during the War. As a matter of fact, we have already tacitly taken into account the issue of paper currency when we considered the growth of the money income and attempted to ascertain the effect which such an increase might have on the food market. Consequently, to the extent to which we have taken into account the changes in the money earnings, we have already reckoned with the factors responsible for these changes, the issue of paper currency included.

If we disregard the effect of the disorganization of transport and of the disorganization in the exchange of commodities, and if we leave out of consideration the measures that were taken by the Government to regulate the food market, there is no means of explaining the rise in the prices of certain commodities and the rate at which the prices of certain other commodities advanced during the first two years of the War. In what manner could the issue of paper money affect prices? Either by increasing the demand or by shortening the supply, or both at the same time. It could affect the in-

crease in the demand because it increased the incomes of people who produced either no foodstuffs or an insufficient amount of foodstuffs.

But an increase in the demand for foodstuffs might be caused not only by the increased earnings, but, generally speaking, by an increase in the free money resources of the nation, for example, by the elimination of expenditure on liquor. At this point of our discussion we are precluded from attributing the total increase of the demand solely to the effects of inflation.

In what way could the increase in available money resources exercise influence upon the visible consumption demand? It could do this either by stimulating the consumer to use a larger amount of foodstuffs than usual without accumulating reserve stocks, that is to say, merely by increasing the ordinary consumption demand, or it might accomplish the same thing by stimulating the desire of the consumer to store up as much as possible for unusually long periods ahead, in other words, by causing an extraordinary consumption demand.

As regards the ordinary consumption demand, it should be stated that it depends not only upon the money at the disposal of the consumers, but likewise upon the nature of the needs and the extent to which these needs are already being satisfied. Therefore, considering the slight elasticity of the need for foodstuffs (of course, this elasticity is not alike for all commodities), the demand for foodstuffs cannot increase parallel with the increase in available monetary resources, nor can it be curtailed in the same ratio as these resources are curtailed, for in the latter event the consumer does not renounce the use of foodstuffs, but of some other commodities.

We have already seen that the visible ordinary consumption demand for grain, with the exception of the demand presented by the rural population in consuming territories, could not have increased to any large extent, while a heavier demand was bound to arise for sugar, higher grades of flour, and a few other articles. There is no necessity to repeat here the argument. We have seen, furthermore, that the demand of the army was also unable to absorb the surplus of a number of food products.

Lastly, the extraordinary consumption demand can in no wise be ascribed to the increase in the available monetary resources of the population. It is true, of course, that these resources make it pos-

sible for an extraordinary demand to manifest itself, but these resources of themselves are incapable of creating such a demand. It is evidently inconceivable that the consumer in present-day society should cram his larder with food supplies for months and months ahead only because his monetary resources happen to be larger. The only thing that may induce him to do so would be a scarcity of foodstuffs and increasing prices. Consequently, it is some other factor to which we must attribute the scarcity and high prices of foodstuffs.

Can this scarcity and price increase be explained by the effect of inflation upon the market supply of foodstuffs? As a matter of fact, the issue of paper currency, by affecting the money resources at the disposal of the producers, could result in: (1) an increase in the consumption of their own produce by the producers themselves, in other words, an increase in the latent demand, which, with a given volume of production, would tend to reduce the possible supply, and (2) refusal of producers to sell.

In the first place we must emphasize the fact that the growth of the resources of the producers was due not only to the issue of paper money, but also to the elimination of the liquor item from their expenditure, so that, in this case again, we cannot ascribe all the causes influencing the supply (disregarding the question of the causes influencing production) merely to inflation. Furthermore, in so far as we wish to explain the advance of prices by the actions of producers under the influence of larger money resources, we must, at least at the starting point of our discussion, disregard that increase in money resources which was caused by the advance of prices, or which was indirectly related to this advance, as, for instance, the higher wages earned by rural laborers. This leaves the following factors to explain the increase in cash resources: (1) elimination of expenditure on liquor; (2) services of horses and conveyances; and (3) government allowances to soldiers' families. It is only the last two factors that may be related to the issue of paper currency. However, even if we were to take into account all the money resources of the producers we could not ascribe to them a decisive influence in the reduction of supply and the movement of prices.

With respect to the latent demand of the producers we may repeat what we have stated already with respect to the visible ordinary consumption demand, namely, that it depends not only upon the



amount really available, but likewise upon the nature of the wants in question and upon the extent to which they are normally satisfied. Of course, the growth of freely available money resources stimulated and increased the consumption of their own products among the peasantry, since it lessened the need of selling these products at the expense of their own wants; at the same time, however, certain limits were placed on larger consumption by the nature of the wants. Thus, for instance, we have seen that the rural population was not able to consume all surpluses of grain during the first two years of the War. Accordingly, if we take into account the volume of production, we find that an increase in the latent demand is of itself insufficient to explain the rise in the prices of many products, nor could it explain the rate of advance in the prices of all products.

It may be suggested that the growth of free cash resources was responsible for the refusal to sell and for the hoarding of supplies. The increase in monetary resources, of course, made such tactics possible, but could hardly have caused them. The fact is that the producer requires goods from the outside. If he grows "rich" it does not necessarily mean that he at once stops selling his products and begins hoarding them. We have seen how the peasants at the beginning of the War used their free funds to buy more sugar, higher grades of flour, textiles, and other articles. If the required goods are available in the market the producer will naturally make an effort to spend his money for the purpose of enlarging his establishment, buying a greater amount of manufactured goods, and so on. It will thus be seen that it is scarcely credible that the producers should have lost their interest in selling merely because they happened to find their financial resources suddenly increased. The reluctance of producers to sell may appear either as one of the results of an advance in prices or as due to the influence of a disorganized commodity exchange. The former is the very thing we still have to explain, while we deliberately ignore the latter in our examination. Larger funds at the disposal of the population and, consequently, the issue of paper currency which is at the back of it, cannot explain the appearance of an extraordinary consumption demand, nor the reluctance of producers to sell, nor, lastly, the speculation of the middlemen. The increase in the monetary resources and the issue of paper money which is the foundation of it

can only up to a certain point explain the increase in the ordinary consumption demand and the decrease in the potential supply (through the medium of latent demand).

Therefore, when we disregard the disorganization of transport and commodity exchange as well as the various government measures, and when we consider only the issue of paper currency, we arrive at the conclusion that prices should have been dictated by the ratio between ordinary consumption demand and potential supply and, moreover, that as a result of the issue of paper currency, the ordinary consumption demand should have somewhat increased, while the latter should have somewhat decreased, as compared with the situation that would have existed had there been no inflation.

In the preceding pages we have studied the growth of ordinary consumption demand and the decrease of potential supply as a result of an increased latent demand, and, in so doing, we have considered not only the increase in the monetary resources of the population due to the issue of paper currency; but also that due to prohibition of liquor; yet we are still unable to explain on these grounds alone the advance in the price of many articles during the first two years of the War, nor are we able to explain the rate of increase in the prices of all commodities on the basis of the ratio between potential supply and ordinary consumption demand. Wherever such an increase could be explained in some measure by this ratio, there appeared the reluctance of producers to sell, together with the extraordinary demand of the consumers and the speculation of middlemen. In reality, all these phenomena occurred in the case of all commodities, including even those obviously plentiful. It follows, therefore, that not everything can be explained by inflation, although it is possible to say that after the issue of paper money prices must have stood a little higher than they would have stood if there had been no inflation. At the same time it is incontestably true that, compared with prices before the War, the prices of many products would have declined had no other factors been at work simultaneously with the issue of paper currency. As soon as we take into account the disorganization of transport, the whole situation changes radically.

*Inflation Operating in Combination with Other Factors.*

We are acquainted with the phenomena that occurred in the consumption market under the influence of the disorganization of trans-

port. We know that the reduction of supply drove prices upward and forced the public to spend a larger share of its available cash resources on foodstuffs. Those groups of the population whose resources did not increase sufficiently were forced to reduce their purchases of other commodities and to strive somehow to augment their incomes. This resulted either in a redistribution of incomes already being earned (for instance, as between employers and employees), or in the creation of such incomes by the issue of paper currency (for instance, increases of the salaries of government employees, pay of army officers and others). Those classes of the population which found themselves with abundant funds at their disposal, thanks to government contracts and similar business, now began to present an extraordinary demand; and so on.

What was at the root of the increase of prices in the consumption market? It was the combined effect of disorganized transport, of inflation, and of the elimination of the expenditure on liquor. After all that has been said above, we think it unnecessary to develop this statement further. As we know, the rise in prices in the consumption markets created a peculiar situation in the production markets and this situation alone justified speculators in investing in the purchase of additional commodities and in making use of banking support, for this purpose. Loans were facilitated by the increase of the deposits due to inflation. The rise in prices led the producers, who have greatly increased their resources, to refrain from selling, and stimulated further issues of paper money by the Government.

Once the general level of prices has risen, the whole cycle may repeat itself again and again. In this process of the advance of price, the disorganization of transport is the fundamental factor, but it produces its effect only when combined with those possibilities which are opened by inflation and other factors. It is interesting to note that the issue of paper money may act (through the increased earnings of the population) as a factor quite independent of the disorganization of transport, merely making it possible for this disorganization to affect prices more deeply, and, again, as a factor resulting from the disorganization of transport and tending to emphasize the effects of the latter in the rise of prices. In other words, inflation may sometimes act as an independent and active element, and sometimes as a resultant and passive element in the movement of prices.



After what has been said here, we need hardly dwell upon the effect produced upon the machinery of prices by that phenomenon which we have already recognized to be almost the strongest factor making for the advance of prices in the food market, namely, the disorganization of commodity exchange. By reducing the supply of foodstuffs in the market and undermining the power of money, this disorganization aggravated the condition of the consumer, encouraged speculation and profiteering, and brought about a rise in prices. In part this was due to the issue of paper currency and the increased money resources of the public, but at the same time it caused still further increases in the issue of paper money, and this naturally tended to put still more money into the hands of the public, and so on *ad infinitum*.

## CHAPTER XII

### EFFECT OF EMBARGOES UPON THE MARKET IN FOODSTUFFS<sup>1</sup>

#### *First Measures.*

WE must consider now the effect upon the market in foodstuffs of the measures which were taken during the initial period of the food supply policy. They cannot be described as a regulation of the market; they were rather intended to secure an immediate supply of foodstuffs for the army. The principal means to assure their success was an embargo on the dispatch of foodstuffs from those regions where the Government purchased supplies for the army. The fundamental reason for such an embargo will be found to be the desire to remove competitors in the purchases of supplies. It thus becomes our next concern to find out what would be the consequences of such an embargo. Without going into any details, we may say that during the first half of 1915 an embargo was established in practically all the producing territories and that it sometimes extended to purchases of food products. At first, the purchasing operations progressed quite successfully, although a very serious disorganization of the market made itself increasingly evident.

What does an embargo mean in a country where the several sections, or territories, are closely connected in trade? It means a rupture of these connections and may be compared (at least for any given commodity) to a disorganization or, rather, a complete paralysis, of transport. This will make it easy to understand the consequences of the freight embargo, especially when we consider that it always covered entire administrative divisions of the country, that is to say, entire provinces (*gubernya*) and districts (*uezd*). Economic boundaries, however, do not always coincide with administrative divisions.

An embargo may have serious effects upon the production of a particular commodity, though in different ways. Of vital impor-

<sup>1</sup> The term embargo is used here in a restricted sense, meaning the prohibition of removal of goods from one part of Russia to another.

tance in this connection is the question whether the particular commodity with which we are concerned is a manufactured product or a raw material.

*Probable Effect of Embargoes on Production.*

If it is a manufactured product, another question arises, namely, whether it is made from local raw material or not. Lastly, a great deal of importance must be attached to a few other considerations, but particularly to the question whether the process of production is continuous or seasonal, and whether it is carried on largely in establishments of the so-called "consumptive" type, which bring to the market only the surplus of their output, or in establishments of the so-called "entrepreneur" type, depending entirely upon the market.

When production is of a seasonal character, an embargo cannot always affect its output; it is obvious that no embargo could destroy goods already produced by the time the season ends. If, however, production is of a continuous character, it may be subjected to the influence of the embargo, but this, again, not uniformly. An embargo may affect most seriously establishments of the entrepreneur type working for the larger markets, and this especially when it closes the markets of disposal. Large enterprises, such as flour-mills, are in this case deprived of the opportunity of selling their goods; their warehouses become congested and the result is a paralysis of production. But there is also another way in which an embargo may arrest production, namely, when it stops the carriage of raw material. This, of course, happens only when a certain product represents the result of conversion from some other product, and the latter is not of local origin.

An embargo, as we see, may affect especially those manufacturing industries which are of a continuous character, organized on an entrepreneur basis, and dependent exclusively upon the market. For such industries an embargo which deprives them of their market has far greater importance, since, regardless of whether the raw material is of local or outside origin, there is in either case a paralysis of production. On the other hand, an embargo which stops the importation of raw materials will seriously affect only those enterprises which are using such raw material. There are, therefore, two ways in which the production of a commodity may suffer from embargoes: (1) by the dislocation of certain production and consumption mar-



kets; (2) by the dislocation of producing regions and territories which furnish them with raw materials. In one set of producing territories there will then be a curtailment of production for the reason that there will be no place where to sell, while in another set it will be because of the lack of raw materials. Such is the possible influence of a freight embargo on production.

*Effect of Embargoes upon Consumption Markets.*

Equally serious are the consequences of an embargo for the consumption market. The supply of the consuming regions may be affected by an embargo in two ways. In the first place, by bringing about, directly, a disruption of producing and consuming areas for the article in question. This of itself already means a catastrophe for the consumption market, regardless of whether output in the producing territory suffered from it or not (and, as we have seen, it has not necessarily suffered). Essentially, the question of production became immaterial in so far as the consuming regions were concerned, at the moment when their connection with the producing regions was broken, since it was the embargo that was the immediate cause of the supply difficulties. In the second place, an embargo may affect the supply of the consuming regions by influencing production in the producing regions, even though the connection between the two regions may be preserved. In this instance, the embargo will not enter as a wedge between the producing and consuming areas for the given commodity, but merely cut off the producing region from its source of raw materials. In this case it will be the arrest of production in those regions which still retain their connection with the consumption markets that will be the immediate cause of the supply difficulties experienced by the consuming regions. In other words, an embargo does not in this case affect supply directly, by breaking the connection between production and consumption markets, but indirectly, through the medium of a disorganization of production.

In either case the situation becomes critical in the consumption markets. The falling off in the receipts of this or that particular commodity brings about a number of phenomena with which we are already familiar from our study of transport disorganization. To begin with, the public hastens to buy reserve supplies and gets the habit of hoarding. If this habit has not been formed under the in-

fluence of the disorganization of transport, it may be formed under the influence of embargoes. Again, if it has existed before, the chances are that it will now be strengthened and extended. It goes without saying that the merchants reckon with all this and hold back supplies. Prices continue to rise and no price regulation, especially if it is only local, can withstand the pressure of the panic-stricken consumer and of the merchant who has lost all sense of moderation. The policy of embargoes is a good method of inculcating disregard of price regulation.

In the end, as long as embargoes are in operation, supplies in the consumption markets will gradually disappear. In a country with a disorganized system of transport this signifies either complete or almost complete exhaustion of supplies in the consumption markets, since there is no longer any hope of replenishing the loss even after the embargo has been removed. In this way the supply of the consumption market becomes prematurely dependent upon current deliveries, and sensitive to the slightest irregularity in transport. No doubt, the same result would in any case inevitably follow so long as transport is disorganized, but it would manifest itself much later. The exhaustion of the stocks of certain commodities in the consumption markets encourages competition among them.

Still more interesting is the fact that consuming regions were themselves occasionally inclined to impose embargoes on the movement of freight from one section to another. It appears that not all consuming provinces and localities were equally affected by the embargoes in the producing regions, since some of them had more supplies than others. In those regions which had a particularly inadequate supply, the level of prices rose highest, with the result that commodities began to be brought in from other more favorably situated consuming regions. There is nothing strange in the fact that the latter should attempt to impose embargoes on the dispatch of this or that particularly threatened commodity from their territory.

It must be admitted, however, that a tendency existed during the War in the consuming regions to establish embargoes as soon as it was noticed that some commodity which was not sufficiently abundant began to be drained away by a neighboring region. As long as the carriage of freight is unrestricted, this tendency cannot operate; but as soon as the establishment of an embargo in producing regions

leaves the consuming regions to their own fate, this tendency must naturally begin to assert itself.

It goes without saying that all the consuming regions, regardless of the means they may have employed in their mutual competition, were agreed on one thing: a demand that embargoes should be removed in the producing regions. To conclude the question of the possible consequences of embargoes, we will say that they tend to transform some producing regions into consuming regions. This may take place in either of the following two ways: (1) by destroying production, for example, when deliveries of raw materials are stopped; if some flour-mills should be forced to cease producing for lack of grain, it is obvious that flour will have to be brought in from other places; (2) by the exhaustion of supply in those producing regions from which the dispatch of the commodity is still permitted.

The preceding exposition should help one to understand the manner in which embargoes may affect the machinery as well as the level of prices. At first, an embargo undoubtedly exerts a powerful influence upon the volume of goods offered and upon prices in those production markets around which the barriers of the embargo are raised. If speculation is rampant in these markets and large stocks of goods are in the hands of the speculative buyers, the disruption of connections with the consumption market is bound to have a discouraging effect on the attitude of the holders of supplies, especially when there is at the same time a threat of requisition. In any case, even if the speculators do not throw upon the market their stocks of supplies, they lose the desire to make additional purchases, and this means that the producers will find it more difficult to find purchasers, and then prices will drop. Of this situation the Government takes advantages to make its own purchases. Of course, the extent of the latter has a decisive influence on the further movement of prices, but nevertheless their level is bound to remain below that which would have existed if there had been no embargo. This proposition, however, holds true only so long as the embargo does not cause on the other side of the barrier such phenomena as will make the lifting of the embargo very probable. If no such likelihood exists, a market which is thus surrounded by embargo barriers drops out, as it were, from the general machinery of trade of the nation and becomes subject to the influence of local conditions only.



Altogether different was the situation which was observed in the spring of 1915 at the height of the embargo practice. This system could not be maintained for any great length of time, since it affected articles of prime necessity, such as grain, flour, grits, meat, etc. So intense were the sufferings of the public in the consuming territories that the raising of the embargoes became imperative and was confidently expected. It is obvious that in the circumstances the spirit of speculation was bound to be revived in the production market surrounded by the barriers of the embargo. First of all, the speculators may buy grain, but leave it in the hands of the producers for the time being, so as to attract less attention. Then, the representatives of the consuming territories will reappear on the scene, trying to obtain in advance the necessary provisions on the spot; lastly, the government organs would hardly be willing to lay hands on supplies destined for the needs of the manufacturing provinces, the more so as the removal of the embargo is already being considered.

We may go even further and say that an extensive use of embargoes is capable of encouraging speculation on an unprecedented scale, since it will contribute to a sharp divergence of prices in the production and consumption markets during the initial period. This price difference, taken in conjunction with the expected removal of the embargo, may become so attractive that the buying up will be encouraged, even at the risk of losing a portion of such supplies by a requisition at fixed prices, if these are in existence. Another fact worth noting is that the rise of prices in those areas of production from which dispatches are still possible is bound to be noticed by the peasants in the adjoining production areas from which dispatches are prohibited, and the result will be that these peasants will refuse to sell, in other words, there will be a shrinkage in the market supply. This tendency may be transmitted also in other directions. The consequence of all these processes will be that prices, notwithstanding the embargo, will rise in all the production markets, although perhaps not quite so high as in the consumption markets.

#### *Embargoes in the Spring of 1915.*

As regards the practical consequences of the embargoes in the spring of 1915, we must point out, in the first place, the short dura-

tion of these embargoes. Those which were obviously absurd were removed almost at once, while others were maintained for a month or two, and only the embargo on oats (the collection of which was particularly difficult) was continued until June 17, 1915. This fact alone was enough to make it impossible for all the otherwise probable consequences of the embargo to become apparent. Still, there are two factors that admit of no doubt: (1) the embargoes produced a marked disparity of prices as between consumption and production markets; (2) they raised the level of prices also in all the production markets (in some of them this happened even prior to the raising of the embargoes and in others immediately afterward), and this to such an extent as could not even have been imagined and would never have been reached if prices in the consumption markets had not been driven up to such unprecedented levels; the only exceptions were the remote markets, as, for instance, in Siberia. Hence, if the disparity between prices in production and consumption markets was increased, it was not because prices were declining in the producing regions, but because prices in the consuming regions were advancing more rapidly than in the producing regions. Let us try to demonstrate this.

It will be more convenient to illustrate this view by the example of the movement of local grain prices, that is, not the produce-exchange quotations, since we are in possession of the proper data of the Ministry of Agriculture for all provinces. The following table will give us a fair idea of the rise in prices between the autumn of 1914 and the spring of 1915.

TABLE 55

INCREASE IN PRICES OF GRAIN IN THE SPRING, 1915, AS  
COMPARED WITH THOSE OF THE AUTUMN, 1914

<i>Regions</i>	<i>Rye</i>	<i>Winter wheat</i>	<i>Spring wheat</i>	<i>Oats</i>	<i>Barley</i>
		<i>(percentages)</i>			
Black-earth belt	40.0	40.5	45.1	45.6	41.3
Less fertile regions	44.8	58.7	52.0	56.7	51.3
Caucasus	47.5	38.9	38.3	34.8	39.4
Siberia and central Asia	18.6	37.6	48.6	42.6	41.0

With the exception of rye, the prices of which rose highest in the Caucasus (this is a consuming area for rye), the regions outside

the black-earth belt which, upon the whole, are consuming regions, rank first in the rate at which the price of all grains advanced. However, all other regions likewise show a strong upward trend of prices and we are not in a position to say that any one of them really dropped out of the general market machinery of the nation.

It is impossible, however, to assert on the basis of this table alone that the wholesale embargoes in the spring of 1915 were responsible for the heavy advance of grain prices. As a matter of fact, there are a few more questions that suggest themselves in this connection: (1) Was not the price increase observed in the spring of 1915 due to a seasonal fluctuation of prices? It is a fact that the Russian market in foodstuffs regularly shows higher prices in the spring than in the autumn; at any rate, this was the immutable law of Russian economic life prior to the War; (2) Was not the price increase in the spring of 1915 the result of disorganized transport, which had grown worse since the autumn of the preceding year? (3) Was it perhaps a result of prices reaching their normal level, following the abnormal decline observed in the autumn of 1914 in connection with the closing of the foreign market, etc.?

All these questions must be answered in the negative. Let us consider, first, questions one and three. In Table 56 the reader will find data on the seasonal fluctuation of prices. Had it been possible to attribute the increase in the price of grain during the spring of 1915 to mere seasonal fluctuation, this increase would generally have kept within the usual margin. It may easily be seen from Table 56 that we are confronted with a peculiar phenomenon in 1914-1915, which we cannot explain by mere seasonal variation of prices. Whereas grain ordinarily rose only a few copecks per pud in the spring (4 to 17), we now observe a most abnormal rise, namely, 24 to 90 copecks. This is the more surprising, since we cannot possibly speak of any appreciable crop failure in 1914, when the harvest was close to the average and amply covered all requirements, not to mention the complete stoppage of exports abroad.

This brings us to the third question, namely, was not the rate of price advance in the spring of 1915 a result of the recovery of the prices of 1914 after their decline in the autumn of 1914 under the influence of the outbreak of the War and the closing of foreign markets? The answer is, of course, that there certainly was some drop in prices in the autumn of 1914. This, however, was very soon



TABLE 56

DIFFERENCES BETWEEN AUTUMN AND SPRING PRICES IN 1909-1913 AND 1914-1915<sup>2</sup>

Regions	Rye			Spring wheat			Oats			Barley		
	Prices in autumn 1914	Difference be- tween autumn and spring prices of 1909 1913	Difference be- tween autumn and spring price of 1914 price of 1915	Prices in autumn 1914	Difference be- tween autumn and spring prices of 1909-1913	Difference be- tween autumn and spring price of 1914 price of 1915	Prices in autumn 1914	Difference be- tween autumn and spring prices of 1909 1913	Difference be- tween autumn and spring price of 1914 price of 1915	Prices in autumn 1914	Difference be- tween autumn and spring prices of 1909-1913	Difference be- tween autumn and spring price of 1914 price of 1915
<i>Less fertile regions:</i>												
Industrial	106	+9	+50	136	+16	+61	110	+13	+70	113	+17	+59
White Russia	98	+4	+45	101	+11	+65	99	+10	+58	98	+8	+53
Lithuania	105	-1	+60	114	+4	+88	109	+12	+67	107	+6	...
Lakes	120	+6	+65	139	...	+90	111	+16	+69	118	+16	+63
Baltic	118	+4	+58	131	-8	+63	115	+9	+86	116	+4	+65
Northern	107	+4	+48	125	+12	+65	104	+12	+59	109	+11	+56
<i>Black-earth belt:</i>												
Central Agricultural	89	+6	+39	101	+11	+36	81	+10	+37	87	+7	+31
Middle Volga	82	+8	+30	99	+13	+40	78	+12	+43	81	+11	+34
Lower Volga	70	+11	+26	81	+14	+35	77	+9	+42	69	+14	+29
Novorossisk	71	+10	+30	86	+12	+41	73	+10	+30	56	+11	+25
Southwestern	88	+5	+30	97	+12	+49	95	+13	+24	79	+8	+25
Ukraine	84	+7	+31	97	+12	+49	78	+10	+39	77	+10	+30

<sup>2</sup> A minus sign (—) signifies that spring prices were below autumn prices; a plus sign (+), that spring prices were above autumn prices.

followed by a rise (the prices of rye and oats did not drop at all, but, on the contrary, kept rising steadily). In other words, the high rate of increase in prices during the spring of 1915 is to be explained, not by the fact that we took the abnormally low prices of 1914 as a starting point for our comparisons, but by the fact that in the spring of 1915 prices had mounted to an abnormally high level. The proof will be found in Table 57.

TABLE 57  
AUTUMN PRICES OF SEPARATE GRAINS IN 1909-1913  
AND IN 1914

Regions	<i>Autumn prices of rye</i>		<i>Autumn prices of winter wheat</i>		<i>Autumn prices of oats</i>		<i>Autumn prices of barley</i>	
	<i>1909- 1913</i>		<i>1909- 1914</i>		<i>1909- 1913</i>		<i>1909- 1913</i>	
	1913	1914	1913	1914	1913	1914	1913	1914
	<i>(in copecks per pud)</i>							
Black-earth belt	74	80	99	101	65	81	68	75
Less fertile regions	95	107	109	126	73	104	87	109
Caucasus	81	82	111	113	63	66	71	76
Siberia and central Asia	85	59	100	85	71	54	68	56

As we see, with the exception of central Asia and Siberia, the autumn prices of 1914 were even higher than the normal autumn prices for a number of years previous to the War, particularly so in regions outside the black-earth belt.

This still leaves the last question to be answered: was it the disorganization of transport that played the most important part in the rise of grain prices during the spring of 1915? Here again, we are unable to give an affirmative answer because in the first half of 1915 the conditions of transport have improved as compared with the autumn of 1914. We are therefore driven to the conclusion that the extraordinary rise in grain prices in the spring of 1915 can be explained only by the misguided policy of extensive embargoes. By purely theoretical reasoning we might reach the same conclusion, which is in agreement with the known facts.

#### *Prices in Consumption and Production Markets.*

It now remains to examine the question of price disparity as between consumption and production markets. This disparity, as al-

ready stated, was bound to arise, because of the more rapid increase in prices in the consumption markets. It constitutes that factor which was responsible for the speculation in the production markets, forcing their prices closer to prices in the consumption markets.

To obtain a complete picture of these price divergences, we must turn from a study of index numbers to actual figures of prices.<sup>3</sup> In sending rye from central agricultural regions, the merchant was able not only to cover all his expenses and make profits such as he made in the autumn of 1914, but even more, thanks to the new disparity between prices in consuming and producing regions; these profits, in the central agricultural region, were from 4.6 to 20.3 per cent of the local purchase prices during the spring of 1915, according to the consumption market to which he was dispatching. The greatest amount of excess profits<sup>4</sup> could be obtained by sending rye from the central agricultural region to the Lakes region, that is, the provinces of Petrograd, Pskov, Olonets, and Novgorod.

When we consider a more distant and cheaper rye-exporting area, such as the region of the Lower Volga, we find that the excess profit, expressed in terms of percentages of local prices in 1915, varied from 19.7 to 40.6 per cent. The greatest excess profit was realized by dispatching rye from the Lower Volga to the Lakes region (40.6 per cent).

Finally, when we consider consignments from Ukraine to the consuming regions, we arrive at an excess profit of 12.1 to 29.5 per cent as compared with the prices that prevailed in Ukraine in the spring of 1915. The largest amount of excess profits will here again appear to have been realized on consignments to the Lakes region.

Do we find a similar situation when we consider the movement of

<sup>3</sup> Data of the Ministry of Agriculture.

<sup>4</sup> The term *excess profits* is used here in a restricted sense and the figures of such profits are arrived at by the following method. For each separate grain the most important consuming regions are selected and the difference in prices, which would be observed if each of these regions had received the respective grain from a specified producing region, is computed. These computations are carried out separately for the autumn of 1914 and the spring of 1915. Then the difference for 1914 is subtracted from the difference for 1915 and the result is called excess profits because it is due exclusively to the disparity of prices in consumption and production markets. These excess profits are expressed in terms of percentages of prices for those production markets from which, it is assumed, grain had been sent to all consumption markets.



produce-exchange quotations? Generally speaking, we do. But then we must also remember that such quotations fluctuate far more than the so-called local prices, and the result is that conditions vary greatly in each instance. Still, there can be no doubt as to the general increases in grain prices in most of the markets from September, 1914, to May, 1915. Nor can there be any doubt that in most cases prices in the consumption markets advanced more rapidly than in the production markets, thus causing a wider disparity between those two sets of prices.

Speaking generally, embargoes did not destroy the unity of the process by which prices are determined. But in so far as embargoes tended to disrupt the connection between production and consumption markets, thereby contributing to the rise of prices in the consumption markets, they were bound to cause an increase in price differences between the two sets of markets. This also resulted in some increase in prices in the production markets, and where the government purchasing operations were largely concentrated the increase in the competitive market prices might even outdistance the increase in the prices prevailing in the consumption market. In the end, a higher price level was established in both production and consumption markets. It is quite certain that a much lower price level would have prevailed in the spring of 1915 had it not been for the policy of embargoes.

The practice of embargoes explains to us some peculiarities in the movement of food prices, if we take into account that this practice during the first half of 1915 affected primarily grain products.

*Certain Aspects of the Movement of Prices Explained  
by Embargoes.*

The extraordinary increase in grain prices during the first half of 1915 is obviously related to the embargoes. More than that, the embargoes afford an easy explanation of the fact that during the first half of 1915 grain rose in price more rapidly than flour in all markets, without any exception, and that millers were complaining of a glut in the flour market; at the same time we can see also more clearly why grain followed immediately behind salt in the rate at which prices advanced. For the millers continued to purchase grain from the local market against the time when the embargo on the exportation of flour should be raised.

However, it is not in regard to cereals alone that it is now possible to throw more light on certain peculiarities in the movement of prices. We can see also the reason for the extraordinary increase in the price of butter at the close of 1915, for on September 24 of that year an embargo was placed upon the dispatch of butter from Siberia (at first, until May 1, 1916, and then for a longer period), and a government monopoly of purchases was introduced. In 1916 an embargo existed also for some time on the dispatch of butter from the Baltic provinces. This is the reason why exorbitant prices prevailed in European Russia at a time when the price of butter had risen comparatively little in Siberia.

## CHAPTER XIII

### THE EFFECT OF PRICE REGULATION UPON THE MARKET IN FOODSTUFFS

#### *Introductory Remarks.*

PRICES in the competitive market are not only a result of supply and demand, but likewise a factor that tends to equalize these. A price is a regulator the shifting of which either upward or downward creates in the market the exact demand sufficient to absorb the entire supply that is offered in the market. If demand exceeds supply, an advance in prices paralyzes a certain portion of the demand, removing it from the market and leaving it unsatisfied, merely potential, as it were. If, on the other hand, the supply is in excess of the demand, a reduction in price brings into the market an additional demand, which had remained unsatisfied and inactive under the previous price.

In the present instance, when regulated prices are introduced in the market for the purpose of counteracting a rise in prices under the influence of an ever recurring excess of demand over supply, the ordinary machinery of the market which usually tends to establish an equilibrium between demand and supply seems to break down and disappear. We may say, then, that the competitive price, which performs the functions of a mobile regulator of the competitive market, is being deliberately tampered with and transformed from a mobile into an immobile instrument, when regulated prices take its place. This means that the factor which tends to paralyze the excess demand every time that the latter is heavier than the supply is bound to disappear. And if the conditions in the market are such that demand keeps on outdistancing supply more and more, then the regulated price, acting as a factor retarding the removal of the excess demand, contributes to the accumulation of excess demand in the market. Every regulated price which retards the advance in the price of any particular commodity therefore makes it possible for a far larger number of customers to obtain goods than would do so if the market were not regulated, but governed by competitive prices.

It goes without saying, however, that this result of regulated



prices does not always mean simultaneously an increase in supply. Therefore, the only probable consequence of the situation thus created will be the acquisition of the available supply of goods partly by the strongest buyers, who might have monopolized the whole supply if prices had been competitive, and partly by people of smaller means. Precisely who will obtain the supplies becomes, in these circumstances, a matter of accident instead of a question of available means. It may so happen that the very people will purchase the goods who would not have been able to do so if a higher competitive price had prevailed. The strongest buyers, on the other hand, may find themselves without any goods at all.

This is a very important consideration to bear in mind. Thanks to it, price regulation acquires a social and political significance. War and the scarcity of commodities that it causes always stimulate the discontent of the least prosperous classes of the community. This discontent manifests itself the more acutely, the more ruthlessly the free play of supply and demand and the rise of prices keep on eliminating from the market the weaker consumers, to the advantage of the stronger. Price regulation, by putting a stop to the elimination of increasingly numerous classes of buyers and by making the purchase of goods a matter of accident rather than of the amount of money available, produces a good deal of optimism, or confidence, in the minds of the people. In this case the possibility of obtaining goods, no matter how small their supply in the market may be, ceases to be the privilege of a steadily dwindling group of strong purchasers, but is left within the reach of at least all those who remain buyers at the moment when the regulated price is introduced, and is even extended to a larger group of buyers, if the regulated price has been fixed considerably below the price that existed previously.

We have no doubt that this fact, coupled with the desire to restrict the profits of the middlemen accruing from what often amounts to a monopoly of the market, is not infrequently the only motive of the authorities in regulating prices. In this way the purely artificial creation of an excess demand finds its justification on social and political grounds, although it would be an absurd proceeding if considered by itself.

There is still another part which price regulation may play. It may reduce the expenditure of the Government on purchases for

the army and thus obviate the necessity of further issue of paper currency. It is much easier for the Government than for any private agency actually to insist on the regulated prices when purchasing.

*Erroneous and One-Sided View of the Significance of Price Levels.*

Even without going into further theoretical analysis, the following propositions seem definitely established: Regulated prices, while they have a tendency to create an excess demand, also cause a very large disparity between demand and supply in all those instances where production shrinks, or where insurmountable obstacles prevent its increase to keep pace with demand; also in those instances where production may be increased under the stimulus of rising prices. Regulated prices do not remove, but rather increase, the difference between demand and supply, when this difference is due to a reduction of supply resulting from the producers' loss of interest in selling and not to a decline of production.

In all these cases the regulated price will not only fail to have a solid basis, but, on the contrary, will very frequently, as it were, be digging its own grave. An artificial basis may be created for it by regulating consumption, that is, by restricting the demand, and taking from the producer his right to dispose of his produce as he sees fit.

A regulated price, if it tends to interrupt the advance of price where such advance was the only reason why supplies were withheld from the market, creates not only an excess demand, but likewise a heavier supply, and the result is that the excess demand is eliminated and an excess supply may even appear in its place, that is, prices may sink below the regulated prices. In the given instance, the regulated price will act not only as a social and political factor, but also as one tending to increase the quantity of the available market supply.

During the War many authorities in the field of food supply regarded price regulation from this standpoint only. This explains the opposition that was shown to any suggestion of a revision of regulated prices. Unfortunately this view prevailed even after the motives of the producers for withholding supplies from the market had radically changed. Up to the middle of 1916 the principal motive for withholding supplies from the market was the expectation of higher prices. Later on, it was due in a considerable measure to the

loss of interest in selling, owing to the disorganization of commodity exchange. In circumstances like these any delay in the advance of prices might prove fatal unless there was a way of compelling the producers to deliver goods.

The views of the supporters of this erroneous theory were heeded and the Special Council on Food Supply fixed the prices below those contemplated by the secretariat, while the Special Council on National Defense reduced prices still further. As far as the autumn purchases of 1916 were concerned, these measures proved fatal.

*Price Regulation Tends To Become All-Inclusive Control  
and To Destroy the Market.*

Generally speaking, therefore, we may say that price regulation has a tendency to become a complex system of control over all the factors and elements influencing prices, affecting not only the produce concerned, but the market as a whole. Under certain conditions such control may become absolute in the case of a given product, and result in its complete removal from the producer as well as from the middleman, that is, the control may turn into a system of governmental supply and thus destroy entirely what is left of the market. Furthermore, the matter does not always rest here. Price regulation may also cause a veritable revolution in methods of production and the grading of the product. The truth is that a large number of different grades of the same goods is incompatible with price regulation, for no human agency could properly distinguish the prices of ten to twenty grades of, let us say, flour or similar commodities. Hence, if it is to be successful, price regulation must be followed by a compulsory reduction in the number of grades of the commodity in question.

It is sufficient to take all these facts into consideration and to recall what we have said about the disorganization of the Russian food market to realize clearly the enormous difficulties presented by the problem of price regulation during the War. This vast empire, with its well-nigh limitless spaces, with a bewildering variety of economic conditions, and with an enormous population of which the overwhelming mass was poorly disciplined, was to be made the field for the application of highly complicated price regulation. The Government was only too well aware of the extraordinary difficulties



of the problem and therefore acted with a great deal of caution and circumspection. The attitude was fully justified by subsequent events.

*Price Regulation and the Consumer.*

The reader is already aware that during the first two to two and a half years of the War it was the disorganization of transport that had been the principal factor in producing high prices. The starting point for the rise in prices was the consumption market. Here we come face to face with a genuine and irremediable, although only local, scarcity of goods, and it is here that advance of prices was generated. It is perfectly obvious that it was impossible to do away with high prices by the mere expedient of regulating prices in the consumption markets. It was necessary either in some way to adjust the transport of goods to meet local requirements or, on the contrary, to adjust local demand to transport. The former was impossible in the very nature of things, even though some palliatives, such as a policy of freight control, refusal to furnish trucks for the carriage of goods of lesser importance, etc., might have been applied in this case. The second alternative meant the regulation of consumption and complete control of trade, since regulation of consumption would have remained futile if the merchants, who had a monopoly control of the market thanks to the disorganization of transport, had remained absolute masters of their supplies. This would have resulted in an illicit market, defying regulations whether of consumption or of prices. From a purely psychological standpoint, moreover, it would have been very difficult to regulate consumption. The Russian consumer was quite unprepared for such a step, the more so since he knew very well that there was still plenty of foodstuffs available in the country. To the Russian, the idea of finding himself placed in the same position as the consumer in Germany, where food was scarce, seemed simply preposterous.

Another important consideration is that in Russia not only the cities, but many rural areas, are centers of consumption. To regulate the consumption of food in the rural areas, however, would have been an absolutely impossible task, and thus the regulation of prices in consuming regions could never be placed on a solid basis.

The party chiefly responsible for the overthrow of the structure of government price regulation in Russia was unquestionably the

consumer: there were no restraints upon his demand; he was forever afraid of being left without supplies. Taught by bitter experience, he always tried to lay in supplies in advance, and he was willing to pay more than the fixed prices. The rest is easy to understand. The merchants, for their part, did not hesitate to pay higher prices, and the result was that all previously fixed or prearranged prices were exceeded. It was soon found that nothing could be obtained at fixed prices in the production market, that goods had to be bought at competitive prices, and that it was therefore impossible to sell at fixed or regulated prices.

*Causes Responsible for Failure of Price Regulation.*

Referring the reader to Part I of the present work, in which the regulation of the food supply of the army and the civilian population is described and analyzed at length, we shall here merely point out that all commerce was hedged in completely during the period that followed the lifting of the direct embargoes on the transport of goods, when other measures were developed in their place. In those sections of the country that produced foodstuffs, fixed prices were introduced, certain definite areas of purchase were set apart, and the organs of the food supply administration exercised supervision over the purchasing and selling operations, as well as over the transport of goods. Lastly, in the consuming centers, there was regulation of wholesale as well as retail prices, based upon fixed prices. One would have thought that with this machinery, it should have been possible, even without regulating consumption, to maintain the requisite level of prices for some considerable period. This, however, proved impossible because the producers held back their grain, thus paralyzing the market. The rapid increase in the prices of grain in August and September, 1916, may be largely explained by these conditions.

Not only did the consumer, whose position by this time had become worse, contribute in every way to increase the current price, in order to assure himself of a sufficient supply of food; not only did the merchants, perceiving the physical impossibility of controlling every business transaction in so vast a country, deliberately attempt to ignore price regulations; but the producer himself contributed his share to the destruction of the carefully devised system of price control. The trouble was that all measures designed to ar-

rest the further rise in prices were based upon the assumption that stabilization of prices would deprive the producers of their main incentive to withhold supplies from the market, their expectation of a further rise of prices. Toward the end of this period, however, the disorganization of commodity exchange was already beginning to have its effect. Foodstuffs were becoming scarce, not only because their price was rising, but likewise because manufactured goods were growing scarcer and dearer. Hence, if the Government had succeeded in definitely fixing and maintaining the prices for foodstuffs, it would not have put an end to the withholding of supplies by the producers, the more so since such prices would have been incompatible with current economic conditions.

The situation thus created was found to be so serious that the Government was compelled, on December 2, 1916, not only to repudiate the prices that it had itself fixed during the autumn and to offer bonuses for prompt sales of grain, but it had even to resort to a compulsory levy on the grain supplies held by producers, amounting to about 800 million puds, in the interest of national defense. It should be noted here that the effect of the raising of the fixed prices and of the bonus system came to an end as soon as the time arrived for grain deliveries to be made under the levy. This forced many producers to sell their grain before the levy began to operate, as they hoped to benefit by the still existing more favorable prices. As for the levy itself, it proved a complete failure and never amounted to anything more than a threat forcing the producers to hasten the disposal of their grain; the fact that the total amount of grain to be delivered under the levy was reduced, according to the law, by the amount of whatever grain had previously been delivered, contributed in particular to this result. The measure helped for some time to increase the volume of supplies collected, but it failed none the less to save the country from the food difficulties that became psychologically inevitable after the outbreak of the Revolution.

There were several reasons for these failures. Purchases for the army and purchases for the civilian population were made under different systems. The first were made by compulsory requisition, the second by competitive buying, although hedged in by fixed prices. It is evident that the second method was more profitable to the producer, if only for the reason that it made it possible for him



to refrain from selling if he saw fit. Refusal to sell may also serve as a very effective weapon against fixed prices, at least where it is a matter of private business.

In reality, the grain producers, working hand in hand with the merchants and the buying public, managed to turn the fixed prices into a mere fiction, so far as any private business was concerned. This is why the necessity of giving up his grain under the levy when there were more profitable opportunities of disposing of it seemed to the peasant a downright calamity to be carefully avoided; not to mention the fact that hoarding of supplies may have seemed to the peasant just then the most profitable course. The levy compelled him to throw a certain amount of his grain on the market (as a result of the bonus offered and because of the danger of losing far more if he should wait for the levy), but at the same time he mobilized all his resources to oppose the levy and he was successful in this, since not more than 35 per cent of the total amount expected by the Government was actually levied.

Needless to say that, in the crisis that now set in, both consumers and authorities were thinking less of enforcing the price regulations than of how to get the much needed goods. It stands to reason that under these conditions the competitive market and competitive prices were bound to prevail once more.

### *The Grain Monopoly and Its Failure.*

The Provisional Government found itself in an exceedingly difficult position. The army was beginning to feel the food crisis. The whole previous course of events in connection with food supply seemed to point to the absolute uselessness of every measure that had been tried. There were only two possible ways of saving the situation: (1) a grain monopoly; (2) regulation of consumption. It seemed that a monopoly would place all producers on an equal footing, irrespective of whether it was a question of supplying the army or the civilian population; in other words, it was probable that the monopoly would do away with the duality existing under the levy system, since it ought to deprive the producer of the opportunity of choosing between giving up his supplies under the levy or selling them in the competitive market. The idea was that the producer should surrender all his grain to the State, with the exception of the amount that he required for his own use, which

amount was to be prescribed by the Government. No doubt, there was still another way left to the producer: he might conceal his grain. But, of course, it was not expected that all, or even any large proportion, could be so concealed.

From this basic measure all the others followed, namely, the organization of stock-taking of grain supplies, the prohibition of private trading in grain, the transformation of the commercial machinery into something like a government agency for the collection of grain, the regulation of grain consumption, etc. It is not our aim to go into any detailed description of all these measures. All that need be stated here is that one of the conditions indispensable to the enforcement of a grain monopoly is an inventory of the stocks of grain in the possession of the producer. But this proved impracticable. That is why the Government collected the grain supplies it required by purchase, confining itself to keeping all other purchasers out of the market. In other words, the Government did not really enforce a grain monopoly in the proper sense, but merely exercised a monopoly in the purchase of grain. In the process of carrying out this monopoly, however, the Government nearly destroyed the whole machinery of the grain trade, without being in a position to put its own organization in its place.

To complete the picture, we must mention also the increase in the fixed prices which was made at the close of March, 1917. Up to June the purchases went on successfully and the total figures of the grain supplies accumulated by that time were quite impressive. But when we consider the fact that the Government proposed to feed the civilian population also, we shall have to arrive at some very pessimistic conclusions. The comparative success of the grain-collecting campaigns was due, in our opinion, to the raising of the fixed prices in March and evidently also to the expectation of peace. Toward the autumn, however, a very grave crisis arose and feverish attempts were made to improve the situation.

By a circular order issued on August 20, 1917, the Minister of Food Supply prescribed extraordinary measures, including, if necessary, armed force, and directed that grain should be taken in the first place from the big landowners and from those producers who happened to be nearest the railway stations. On August 27, M. Kerensky and M. Zelheim, Associate Minister of Food Supply, dispatched the following telegraphic order to the local food supply

committees: "You are requested to mobilize without delay the entire machinery for the handling of grain and to enlist the coöperation of local business organizations, of flour manufacturers and reliable firms, as well as of the coöperative societies."

On the same day the Provisional Government authorized the Minister of Food Supply to requisition all grain not delivered by the prescribed date, at 30 per cent less than the fixed price. Yet on the same date the fixed prices were doubled.

It goes without saying that in the presence of the very serious crisis, which rendered it impossible to provide the army and the civilian population with sufficient food, an illicit market inevitably made its appearance, with its accompaniment of secret trading, "bag-peddlers," and competitive prices. The overthrow of the commercial machinery, without an effective government machinery taking its place, signified the destruction of that vital force of the community which, in spite of the disorganization of transport, was instinctively striving to overcome the effects of the broken connections between producing and consuming areas. This is why an enormous divergence of prices was observed during the second half of 1917, between production and consumption markets.





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